Attachment 133

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

FEDERAL TRADE COMMISSION,

  Plaintiff,

     v.

AMAZON.COM, INC., a corporation;

NEIL LINDSAY, individually and as an

officer of AMAZON.COM, INC.;

RUSSELL GRANDINETTI, individually

and as an officer of AMAZON.COM, INC.;

and

JAMIL GHANI, individually and as an

officer of AMAZON.COM, INC.,

    Defendants.

CIV. NO. 2:23-CV-0932-JHC

REBUTTAL EXPERT REPORT OF

CRAIG ROSENBERG, PHD

March 26, 2025

Contents

1.0 Qualifications, Assignment, and Compensation

1.0.1 Qualifications

1.   My name is Dr. Craig Rosenberg. For 30 years, I have worked in human factors,[1] user interface design, software development, software architecture, systems engineering, and modeling and simulation across a wide variety of application areas, including aerospace, communications, entertainment, manufacturing, and healthcare. For the past 21 years, I have been a consultant for Global Technica, Sunny Day Software, Stanley Associates, Techrizon, CDI Corporation, and the Barr Group. In this capacity, I have provided advanced engineering services for many companies.

2.   I graduated from the University of Washington in 1988 with a B.S. in Industrial Engineering. After graduation, I continued my studies at the University of Washington, obtaining an M.S. in Human Factors in 1990. In 1994, I graduated with a Ph.D. in Human Factors.

3.   I have designed and conducted many human factors and usability studies while working as a graduate student at the University of Washington and as a Human Factors Engineer for Boeing. As a graduate student, I conducted approximately two dozen human factors and usability studies to test the efficacy and usability of multiple different types of user interfaces. The human factors and software usability studies encompassed a wide range of user experiences including three-dimensional, stereoscopic, and auditory displays. While at Boeing, I conducted several usability studies of Boeing-built raster and vector computer aided design systems and Boeing-built air traffic control systems. In addition, I designed and ran several usability studies for various litigation cases that I worked on. These usability studies investigated the use and usability of in-vehicle infotainment systems, automotive shifters, and mobile and tablet software associated with app stores.

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[1] Human factors is a multidisciplinary field that studies how people interact with machines, technology, and their environment. It combines engineering, psychology, science, and design to create safer, more effective and efficient systems.

4

4.   My other qualifications are described in my opening report in this case, dated February 24, 2025. Additionally, a complete list of my professional qualifications, publications, affiliations, and previous expert witness testimony on issues relating to UI/UX design, human factors, and software engineering are described in my curriculum vitae, which is attached as **Appendix A**.

1.0.2 Assignment

5.   I have been retained by Hueston Hennigan LLP, counsel for Amazon.com, Inc. ("Amazon"), to assess and respond to the opinions and analysis of Plaintiff the Federal Trade Commission's ("FTC") expert report of Dr. Marshini Chetty dated February 24, 2025, which alleges that Amazon employs "dark patterns" in its Prime enrollment and cancellation processes.

6.   Global Technica is being compensated at a rate of $735 per hour for all of my work in connection with this case and at lower rates for time spent by others on my team. This compensation is not dependent on the substance of my testimony or the outcome of this matter.

7.   This report is a statement of opinions I currently expect to express in trial and the bases and reasons for those opinions.[2] In forming the opinions expressed herein, I relied on my education, experience, and knowledge in designing, developing, deploying, and testing a wide range of software applications and graphical user interfaces and on the documents and information referenced in this report. I have also considered documents and other materials, which are cited herein and/or listed in **Appendix B.**

8.   This report summarizes only my current opinions, which are subject to change depending on ongoing discovery and additional information. I respectfully reserve the right to supplement my report if any additional fact discovery, opinions by other experts, and/or trial testimony compels a need. I also respectfully reserve the right to provide additional rebuttal opinions and testimony in response to other experts, and additional rebuttal testimony in response to any fact witnesses. In connection with eventual trial testimony, I may use as exhibits various documents produced in this litigation that refer or relate to the matters discussed in this report. I have not yet

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[2] I also incorporate all opinions expressed in my Opening Report dated February 24, 2025.

selected any such exhibits. In addition, I respectfully reserve the right to use animations, demonstratives, enlargements of actual attachments, and other information to convey my opinions. The entirety of my report, including attachments and referenced materials, supplies the basis for my analysis, conclusions and opinions.

1.0.3   Summary of Opinions

9.   Based on the research and analysis described in my report, I have formed the following opinions:

a. Dr. Chetty's "Cognitive Walkthrough" Opinions:

i.   Dr. Chetty's evaluation method is more akin to a heuristic evaluation than a cognitive walkthrough (a distinct type of usability analysis with different goals and methods). Heuristic evaluations are inherently subjective.

ii. Dr. Chetty's evaluation and resultant opinions are flawed because they are based on Dr. Chetty's own subjective analysis of Amazon's various design elements. Importantly, Dr. Chetty's personal assessment of whether an element *can* cause user confusion does not show whether Amazon users were *actually* confused, nor what the rate and frequency of that confusion would be.

iii. The design elements Dr. Chetty criticizes as "dark patterns" in Amazon's checkout and cancellation flows are, in fact, widely used across the industry and are well-accepted design standards. For example, the use of commonly utilized, truthful marketing elements (such as retention offers) does not equate to coercion or deception.

b. Dr. Chetty's "Think Aloud User Study" Opinions:

i.   Dr. Chetty's conclusions from her study of the "CandyForever" candy website relies on subjective analysis and artificial test environments. As such, this study is neither reflective nor predictive of real-world consumer behavior.

1. For example, participants were aware the exercise was not real, leading them to make choices "for fun" and without financial stakes.

2. Additionally, the small sample size lacks statistical power, and the study's value even as a qualitative study is seriously deficient because it did not benchmark against industry standards or account for key financial incentives that influence actual consumer decision-making.

ii. Dr. Chetty's conclusions about user confusion lack a proper baseline comparison. For example, users may not read terms and conditions simply because most consumers generally do not, not due to deceptive design – or because the stakes of this simulated exercise were low to non-existent for them. Moreover, Dr. Chetty's study asks users to recall terms and conditions *after* the study's conclusion, which does not measure whether a user actually *read and understood* a term, but rather whether the user has the memory to *recall* the term.

iii. Dr. Chetty's manual coding of participants' behavior is seriously flawed. For example, for questions about whether participants understood the nature of the Premium subscription, Dr. Chetty coded the answers as binary answers of "Yes" or "No" even though participants' actual understanding likely fell somewhere in between.

2.0 Overview of Opposing Expert's Claims

10.   Dr. Chetty's report uses two methodologies—a cognitive walkthrough and a think-aloud study—to assert three main allegations against Amazon's Prime sign-up and cancellation processes. These three main opinions are:

- **Prime enrollment during checkout is confusing.** Dr. Chetty believes that consumers are steered toward enrolling in Prime due to the design of Amazon's checkout process. Dr. Chetty's report claims that some consumers unintentionally enroll because of the way Prime options are presented.

- **Prime's material terms are not clearly conveyed.** Dr. Chetty argues that Amazon does not sufficiently disclose key details, such as the cost of Prime after a free trial expires, auto-renewal terms and how to opt-out, and the difference between free shipping with Prime versus standard checkout options.

- **The Prime cancellation process uses dark patterns to deter consumers from cancelling**. Dr. Chetty believes that Amazon's multi-step cancellation flow (which she refers to as "Iliad" and "Iliad 2.0") is designed to be difficult to find, time-consuming with unnecessary steps, and manipulative because it presents offers to retain users rather than immediately allowing cancellation.

3.0 Cognitive Walkthrough of Prime Enrollment Flows

11.   In this section, I will discuss Dr. Chetty's purported "cognitive walkthrough" approach, beginning with general methodological flaws in the approach, followed by specific errors and deficiencies in her analysis.

3.1   Cognitive Walkthroughs Versus Heuristic Evaluations

12.   While Dr. Chetty labels her evaluation of the Prime flows as a "cognitive walkthrough," in my opinion, her approach is not a true cognitive walkthrough evaluation. It is more akin to a heuristic evaluation.

13.   While both cognitive walkthroughs and heuristic evaluations are usability inspection methods, they differ in focus: cognitive walkthroughs concentrate on user task completion and learnability, while heuristic evaluations focus on expert review of an interface against a set of established usability principles (i.e., heuristics).

14.   A cognitive walkthrough is a "theoretically structured evaluation process that takes the form of a list of questions."[3] It is a task-based inspection method that typically involves a team of reviewers walking through each step of a task flow and answering a list of prescribed questions with the goal of identifying those aspects of the interface that could be challenging to new users.[4] The reviewer(s) will ask questions about the user's likely actions, mental models, and potential difficulties with the goal of simulating a user's thought process and actions as they perform specific tasks, emphasizing learnability and ease of use for achieving certain defined goals.

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[3] Lewis, C et al. (1990), "Testing a Walkthrough Methodology for Theory-Based Design of Walk-Up-and-Use Interfaces," *CHI '90: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, https://dl.acm.org/doi/10.1145/97243.97279.

[4] Flaherty, K. (2022), "Evaluate Interface Learnability with Cognitive Walkthroughs," *Nielsen Norman Group*, https://www.nngroup.com/articles/cognitive-walkthroughs/.

15.   The cognitive walkthrough was initially introduced by Clayton Lewis and his colleagues in 1990.[5] Grounded in cognitive science, the method is based on the CE+ theoretical model, which explains how users learn interfaces through exploration and problem-solving.

16.   In contrast, in a heuristic evaluation, a UX expert will evaluate the user interface against a set of heuristics (for example, Nielsen's 10 Usability Heuristics[6]) with the goal of identifying potential usability problems or areas for improvement.

17.   Cognitive walkthroughs require more preparation and documentation (including defining the inputs to the walkthrough, namely (i) the users of the system, (ii) the tasks to be analyzed, (iii) the correct action sequence for each task, and (iv) defining the relevant interface),[7] while heuristic evaluations are "more general in nature" and more flexible and subjective.[8]

18.   Cathleen Wharton and colleagues, who developed the modern, streamlined cognitive walkthrough process that has been widely adopted for all types of interfaces (including websites and applications), described the subjectivity inherent in heuristic evaluations as follows:[9]

> *[H]euristic evaluation promotes the notion of straying off a rigid path of analysis: the evaluator can look at any given part of an interface in any order and manner he or she chooses.*

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[5] Lewis, C et al. (1990), "Testing a Walkthrough Methodology for Theory-Based Design of Walk-Up-and-Use Interfaces," *CHI '90: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, https://dl.acm.org/doi/10.1145/97243.97279.

[6] Nielsen, J. (2024), "10 Usability Heuristics for User Interface Design," *Nielsen Norman Group*, https://www.nngroup.com/articles/ten-usability-heuristics/.

[7] Wharton, C. et al. (1994), "The Cognitive Walkthrough: A Practitioner's Guide." In Nielsen, J. and Mack, R.L. (ed.) *Usability Inspection Methods,* https://dl.acm.org/doi/book/10.5555/189200. Accessible online: https://www.colorado.edu/ics/sites/default/files/attached-files/93-07.pdf.

[8] Flaherty, K. (2022), "Evaluate Interface Learnability with Cognitive Walkthroughs," *Nielsen Norman Group*, https://www.nngroup.com/articles/cognitive-walkthroughs/.

[9] Wharton, C. et al. (1994), "The Cognitive Walkthrough: A Practitioner's Guide" In Nielsen, J. and Mack, R.L. (ed.), *Usability Inspection Methods,* https://dl.acm.org/doi/book/10.5555/189200. Accessible online: https://www.colorado.edu/ics/sites/default/files/attached-files/93-07.pdf, at p. 32.

19.   Dr. Chetty's report speaks of "tasks," but it is more focused on heuristic evaluation. (*See, e.g.*, ¶ 83):[10]

> *For my cognitive walkthrough,* **I used a combination of well-established heuristics** *described above: the principles of good design, the 8 golden rules, and the Gray Dark Pattern Ontology. It is well-established that a single expert evaluator cannot uncover all problems with an interface* **using a heuristic evaluation**. *As such, my evaluation may not reveal* all *dark patterns present in the Amazon flows but rather most of them.* (emphases added).

3.2   Methodological Flaws

20.   Dr. Chetty's usability evaluation (which, as above, I consider to be more akin to a heuristic evaluation than a cognitive walkthrough) involves subjectively navigating Amazon's checkout and cancellation processes to identify usability issues. This approach has several flaws.

3.2.1   Subjectivity and Bias

21.   Since the evaluation is based on her expectations rather than real user behavior, it lacks empirical validation beyond the think-aloud study (which is also flawed). Dr. Chetty's bias is evident in her focus on dark patterns and ignoring other plausible explanations for consumer behavior and decision-making.[11]

22.   As explained above, it is well understood among UX experts that in heuristic evaluation, "the evaluator can look at any given part of an interface in any order and manner he or she chooses."[12] Heuristic evaluation is therefore "essentially informal and subjective."[13] In other

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[10] *See also* Chetty Report ¶ 80 ("To analyze whether the Amazon processes that the FTC provided me allowed consumers to make selections on the interface that reflect their intention, I used an inspection method known as a cognitive walkthrough *using established heuristics in a systematic manner*.") (emphasis added).

[11] As explained in my Opening Report at p. 11, "[t]he absence of universally accepted criteria for what constitutes a 'dark pattern' complicates its application in evaluating user interface designs."

[12] Wharton, C. et al. (1994), "The Cognitive Walkthrough: A Practitioner's Guide," In Nielsen, J. and Mack, R.L. (ed.), *Usability Inspection Methods*. DOI: https://dl.acm.org/doi/book/10.5555/189200. Accessible online: https://www.colorado.edu/ics/sites/default/files/attached-files/93-07.pdf, at p. 32.

[13] Forsell, C. (2012), "Evaluation in Information Visualization: Heuristic Evaluation," *2012 16th International Conference on Information Visualisation*, Montpellier, France, pp. 136-142, at 138. *See also* Sutcliffe, A. (2002),

words, a heuristic evaluation is, by design, "subjective [in] nature" and "can result in varied findings" depending on the evaluator.[14]

23.   Dr. Chetty is selectively evaluating Amazon's user interface in the order and manner she has chosen with the implicit goal of finding dark patterns. Not all user confusion is due to deceptive design. For example, some users may click quickly without reading, forget they enrolled in Prime, or miss auto-renewal reminders. All of these reasonable and likely behaviors could lead to customer confusion without any of the attributes of so-called dark patterns coming into play. To consider an example, many consumers sign up for gym memberships and forget about monthly charges, but this does not mean the gym is using dark patterns.

3.2.2   No Evidence of Actual User Confusion

24.   Dr. Chetty's personal assessment cannot confirm that actual Amazon customers were actually misled. To provide this evidence, Dr. Chetty draws conclusions on what she thinks is "likely" or "could confuse" users (e.g., ¶ 146 (opining that design of Amazon's Single Page Checkout, or SPC flow, "could []confuse consumers" and is "likely misleading consumers into thinking Prime is not going to cost them anything"). Dr. Chetty also draws inferences from the think-aloud study. But, as I explain later in this report, the think-aloud study has numerous methodological flaws which make it inappropriate for extrapolation.

25.   When discussing user confusion, it is also important to account for the very large number of Amazon customers. It is reasonable to assume that the millions of Amazon Prime customers would fall along a normal distribution (e.g., bell curve) where some number will always exhibit some degree of confusion. Amazon rightly works to minimize the number of confused customers, but it should not be expected that no customer will ever be confused given the wide range of

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"Assessing the Reliability of Heuristic Evaluation for Web Site Attractiveness and Usability." *In Proceedings of the 35th Annual Hawaii International Conference on System Sciences*, at pp. 1846-47 (multiple researchers evaluating three websites using heuristic evaluation to determine usability and attractiveness "commented that they felt their judgement was very subjective"; authors noted that it was "worrying [] that Nielsen's heuristics were not more reliable.").

[14]   "Heuristic   Evaluation   (HE),"   *Interaction   Design*,   https://www.interaction-design.org/literature/topics/heuristic-evaluation.

capabilities and experiences of Amazon shoppers. Even FTC Assistant Director Amanda Basta acknowledged in her deposition,[15] "*what will be simple for one consumer may not be for another.*"

3.2.3   Misinterpretation of UX Elements

26.   Many of Amazon's UX choices which Dr. Chetty criticizes as dark patterns are actually standard design principles that are commonly used across the industry, as I will outline in the next section.

3.3   Many of Dr. Chetty's So-Called Dark Patterns Are Industry Norms for Marketing and Subscription Models

27.   Dr. Chetty states:

> *[D]ark patterns are user interface design choices that coerce, deceive, or manipulate users into making a decision that, if fully informed or otherwise capable of selecting an alternative, they would not have made.* (¶ 36).

28.   Yet, as I will show in this report, many of the dark patterns that Dr. Chetty identifies are, in fact, industry norms.

29.   For example, Amazon promotes its Prime service, which they have a right to do. Many websites use similar techniques to promote subscription services, including using prominent buttons for free trials combined with reduced prominence of opt-out options. This is a widely accepted design pattern across the industry.

30.   Even Amazon UX researchers agree that many of the "dark patterns" Dr. Chetty identifies are common marketing practices. For example, former Amazon User Experience Researcher Reid Nelson noted several other common marketing practices in his deposition:[16]

> *Defaulting users to an option that has a financial consequence or some other consequence of importance to them, privacy or otherwise which can include having to untick a check box that's been default ticked, displaying financial consequences or other important consequences the*

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[15] Deposition of Amanda Basta, September 10, 2024, at p. 166:17-18.

[16] Deposition of Reid Nelson, February 27, 2025, at pp. 113:18-25.

user would want to consider to make an informed decision in fine print somewhere on the page that is difficult to read or that the user must scroll to display or find.

31.   To consider another example, many subscription services present membership offers in checkout flows. Dr. Chetty claims that this constitutes a dark pattern of "hiding information" in these flows and states:

A user in this context may not understand that the free trial will auto-renew and that they will be charged periodically once their trial period ends, until they cancel the subscription. (¶ 55(iv)(a)).

32.   Yet offering free trials with auto-renewal features is a very common industry practice. Netflix, Hulu, Spotify, and Apple Music all offer free trials with auto-renewal. Spotify provides a free trial, and users must cancel to avoid charges. This is identical to Amazon's model, which is not considered deceptive in the industry.
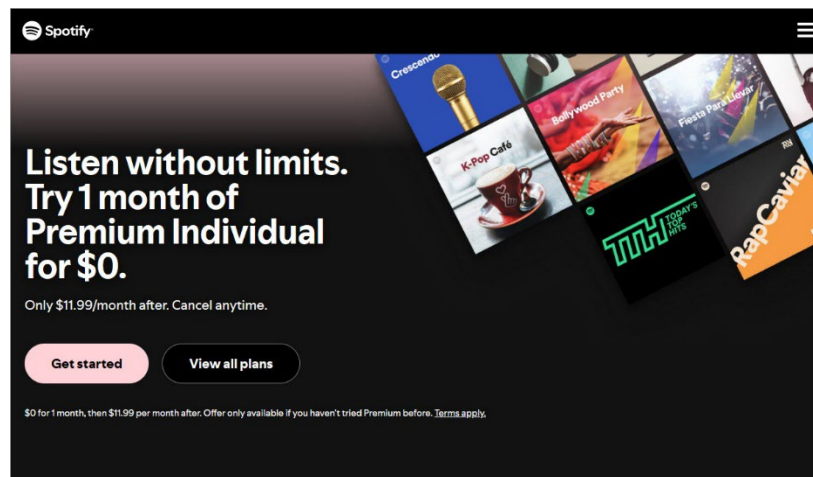
Figure 1: *Spotify Premium Individual Offer with auto-renewal*

Figure 2: *Target Free Trial with auto-renewal (highlight added)*

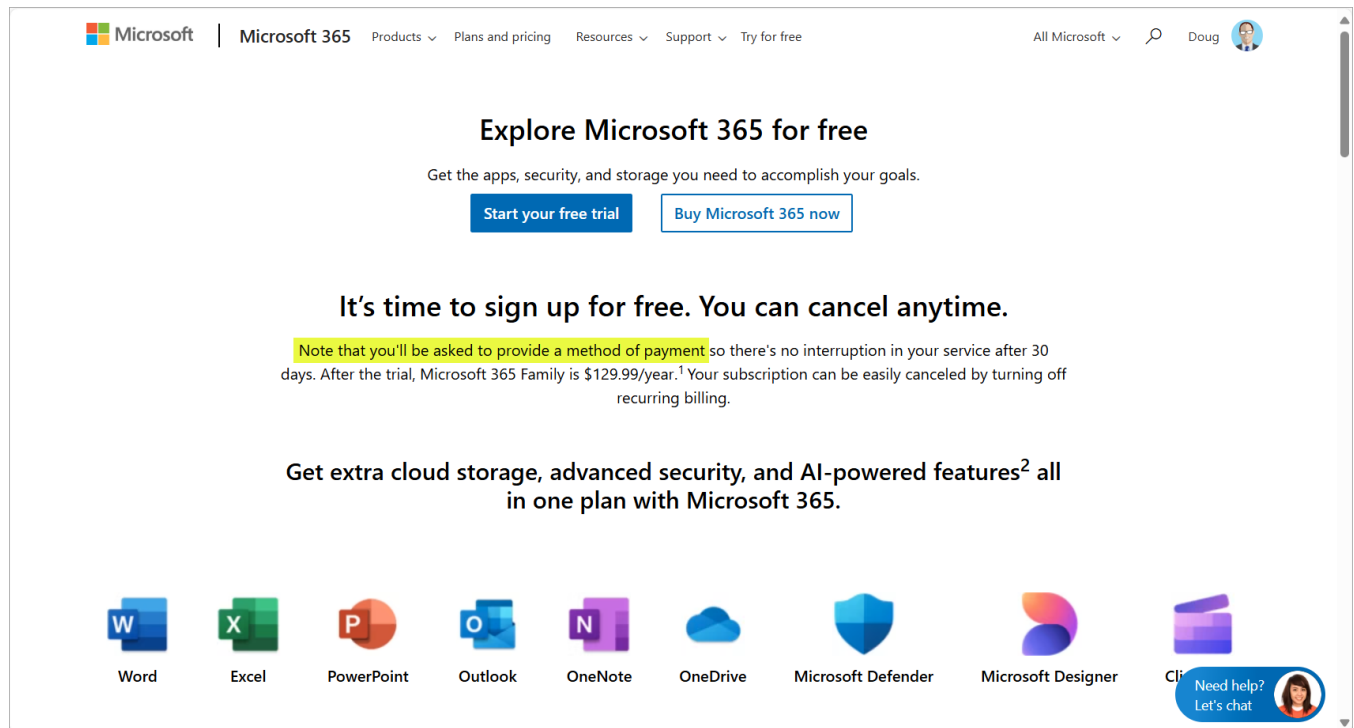**Figure 3:** *Microsoft Office 365 Free Trial with auto-renewal (highlight added)*

33.   As I outlined in Section 4.0.7 of my Opening Expert Report:

> *The lack of objective standards, reliance on shaky scientific foundations, and susceptibility to subjective interpretation with the concept of "dark patterns" raises important questions about the responsibilities of designers and companies when designing user interfaces, and undermines its utility as a deterministic framework for evaluating design practices. While regulators and the public should remain vigilant about unethical behavior, the discussions, evaluations, and potential implementations around "dark patterns" need greater conceptual clarity and empirical rigor. Without these, the presence (or absence) of "dark patterns" has devolved into a catch-all critique of business practices rather than a precise tool for ensuring fairness in digital environments.*

34.   Dr. Chetty's report is further evidence of this subjectivity and of a bias that dark patterns are prevalent in the Amazon enrollment and cancellation process. The table below shows how some of Dr. Chetty's claims have alternative explanations and are not dark patterns.

16

Dr. Chetty's Claim	Alternative and Plausible Explanation
Forced Action and Nagging – Users are bombarded with Prime signup prompts.	**Not Coercion** – The option to decline a service is always present. Many online services offer multiple touchpoints to join premium services or decline to do so.
Interface Interference and Visual Manipulation – Prime enrollment is more visually prominent than non-Prime checkout.	**Standard Marketing Design** – Highlighting offers that are beneficial to a customer is common practice in UX. Consumers are still given clear non-Prime checkout options.
Interface Interference and Visual Manipulation – De-emphasis of decline options and hiding terms and conditions.	**Standard Industry Practice** – Amazon follows standard industry practice regarding placement and emphasis of terms and conditions in the user interface. Amazon also provides summaries of key points in the terms and conditions.
Roach Motel and Obstruction in Cancellation – Users are trapped in Prime with a complex exit process.	**Standard Industry Practice** – Presenting alternative "save" offers (e.g. pause membership, discounts) before cancellation is used across Netflix, Spotify, and many other subscription services. Users can still cancel easily.
Emotional or Sensory Manipulation – Emphasis on "Free."	**Standard Industry Practice** – Emphasizing that something is free is a long-standing and accepted business practice.
Emotional or Sensory Manipulation – Confirmshaming.	**Not Coercion** – Amazon is merely reminding customers of benefits they may forgo if they cancel Prime, and they use mild language that is unlikely to dissuade a customer intent on cancelling.

35.   Dr. Chetty also criticizes Amazon's enrollment flows for providing too little information on Prime's terms in the checkout flow, alleging that it is an attempt by Amazon to hide information from users. But when Amazon provides more information on Prime benefits in the cancellation flow, Dr. Chetty criticizes it as an attempt to force cognitive overload on users. For example, Dr. Chetty repeatedly emphasizes the need to present Prime's full terms in the checkout flow so that users can have "complete information" before selecting Prime. (*See* ¶ 144). But for the cancellation flow, she critiques Amazon for "*flood[ing] users with information*," "*creat[ing] cognitive overload*," and providing three options rather than two: Remind Me Later, Continue to Cancel, and Keep My Benefits. (*See* ¶ 221).

36.   To the extent that Dr. Chetty believes that there is a single "dark pattern" standard that can be articulated and applied, that same standard must be applied to evaluate both the Prime signup flow *and* the Prime cancellation flow—applying a double standard is not proper. Instead, if Dr.

Chetty is implicitly conceding that enrollment and cancellation flows are different tasks that involve different design decisions and standards, she would also be conceding that there is no objective, one-size-fits-all approach to determining what a "dark pattern" is for each flow.

3.4   Rebuttal of Each Individual Enrollment Flow

37.   To begin, Dr. Chetty inaccurately represents basic facts about the enrollment flow. For example, she states that Prime Free Trial Terms are not clearly displayed (e.g., ¶¶ 110, 128). However, during signup, Amazon explicitly states the cost after the trial period ends, the auto-renewal terms and cancellation policies, and the benefits of Prime membership (free shipping, streaming, etc.). This can be seen in the below screenshot of the Prime enrollment page, in which Amazon states and bolds the most important terms for the trial: "By signing up, you agree to the Amazon Prime Terms and authorize us to charge your default payment method or another payment method on file after your 30-day free trial. **Your Amazon Prime membership continues until cancelled. If you do not wish to continue for $12.99 per month + any taxes, you may cancel any time by visiting Your Account**."
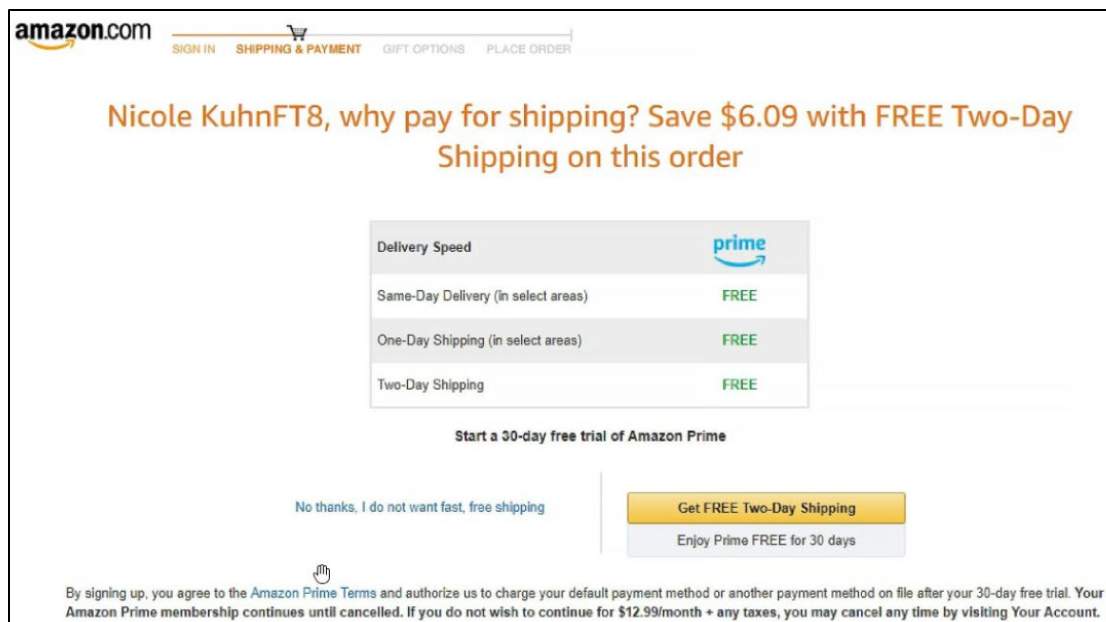

Figure 4: *Prime Free Trial Terms*

38.   Below, I respond to Dr. Chetty's detailed comments on each enrollment flow.

18

3.4.1   SOSP on Desktop and Mobile Devices

39.   I reviewed Dr. Chetty's overview and cognitive walkthrough of the Shipping Option Select Page (SOSP) on desktop and mobile devices. She provides this screenshot as "*a representative image of the SOSP.*" (¶ 100).
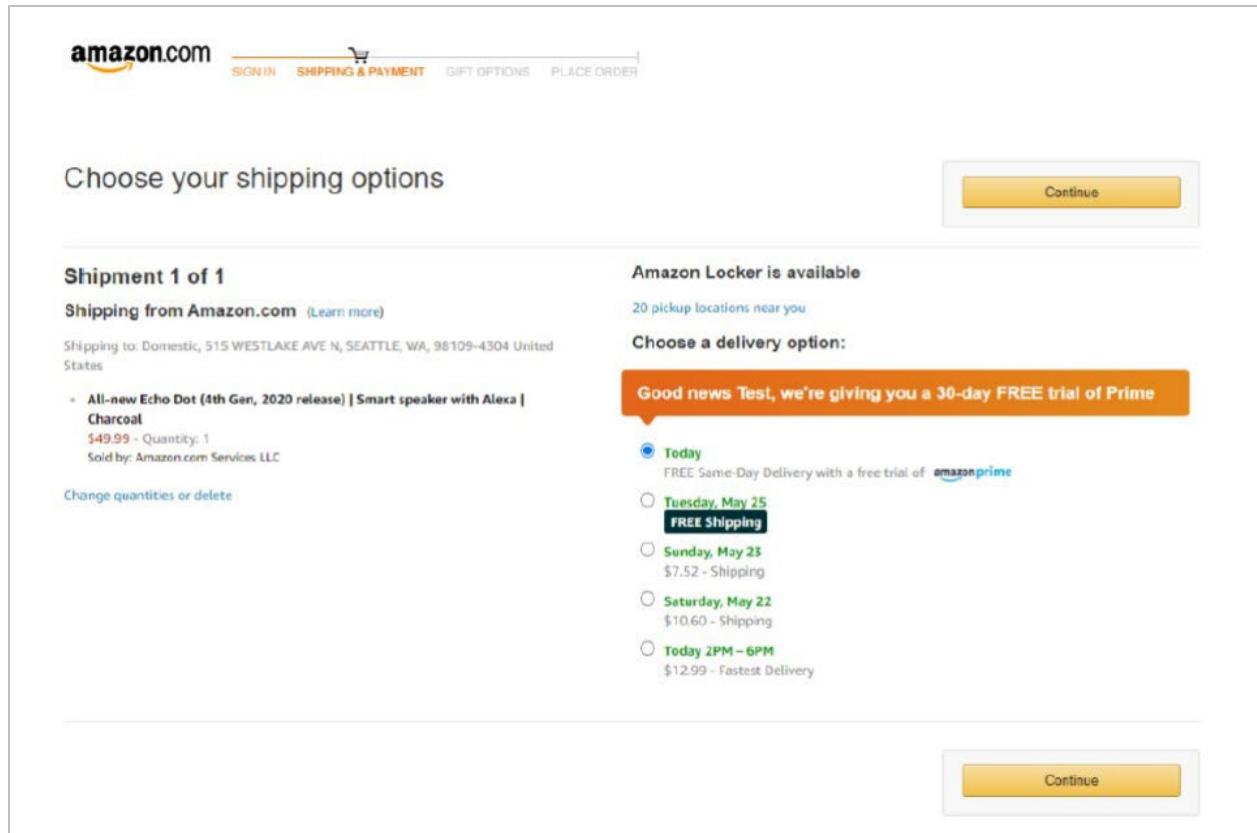

Figure 5: *Representative Image of the Shipping Option Select Page (SOSP) on Desktop (Figure 6 from the Chetty Report)*
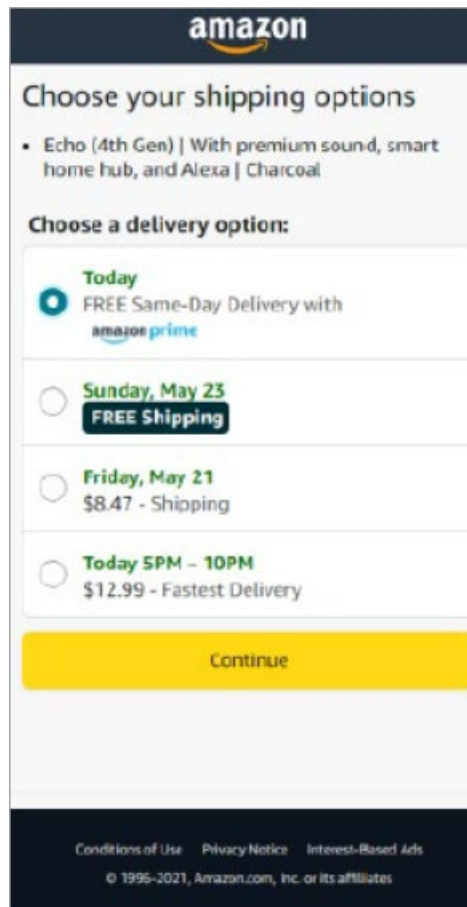
40.   She also provides a mobile screenshot:

19

Figure 6: *Representative image of the Shipping Option Select Page (SOSP) on Mobile (Figure 7 from the Chetty Report)*

41.   Dr. Chetty states at ¶ 101:

> *[T]he placement of the Prime shipping option at the first on the list of options makes users more likely to proceed with that option and subsequently enroll in Prime.*

42.   She also notes that the free shipping option appears at the top of the mobile page (¶ 103). This statement demonstrates Dr. Chetty's bias toward believing that Amazon is using dark patterns to deceive users. By contrast, I observe that the page orders shipping options by value to the consumer, with delivery dates sorted first by cost, with least expensive first; then sorted chronologically by delivery date, with the earliest date presented first. Because, in the example shown, Prime Enrollment came with free same-day delivery, it appeared first on the list.

20

43.   Many other websites follow this very common practice of putting an offer for the user at the top of a list of options. Placing a subscription offer at the top of a list of options in a retail setting is not a "dark pattern" for several key reasons:

a. **Standard User Experience (UX) and Design Principles**

   i.   In many interfaces, the most valuable or recommended option is placed at the top, following common UX practices.

   ii. The top-to-bottom reading flow naturally positions prominent choices at the beginning.

b. **Consumer Autonomy and Free Choice**

   i.   If users are given the option to decline the subscription without excessive friction, it is not coercive.

   ii. As long as users can easily choose another option, they are not being tricked into selecting the subscription.

   iii. The presence of alternative options ensures users are not forced into choosing the subscription.

c. **Industry Standards and Best Practices**

   i.   Many reputable retailers place their most cost-effective or preferred option first.

   ii. Subscription models often offer better value and placing them prominently ensures that consumers know about potential savings.

d. **Not a "Dark Pattern" Because It Does Not Obscure or Trick**

   i.   If the list clearly presents all available choices and does not manipulate users into accidentally selecting the subscription, it is not a dark pattern.

e. **Encouraging Informed Decision-Making**

21

i.   Placing the subscription first can benefit users by making them aware of savings opportunities. Users still retain the ability to compare options and select their preferred choice.

44.   Dr. Chetty also states at (¶ 102):

> *The "Good News [Name]…" framing uses Emotional and Sensory Manipulation to make consumers feel more positively inclined towards Prime, as though they are special in getting this deal. Also, the word "FREE" is emphasized, and a user may focus on that word and assume there are no costs associated with this deal at the present or at a future time.*

She also labels this "Manipulating Choice Architecture" (¶ 190).

45.   This subjective opinion is presented without empirical evidence regarding how a user might interpret the use of their name or the word "FREE" within this context. No evidence is presented of actual user confusion. Nor is it logical to assume that a company's use of a customer's name (a very common practice known as customized, or personalized, advertising)[17] causes them to feel a level of emotion that would coerce them into taking unwanted actions. Moreover, highlighting the word "free" is a very common practice. Here, Microsoft, AT&T, and Paramount+ also emphasize "free."

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[17] Leibovitch, A., "Ultimate Guide To Personalized Ads: Best Practices + Examples," *The CMO Club*, https://thecmo.com/digital-marketing/personalized-ads/#:~:text=These%20are%20just%20some%20of,interests%2C%20fostering%20a%20deeper%20connection ("Customization: Use customer names, purchase history, or other personal details to craft messages and offers specific to their needs and interests, fostering a deeper connection.").
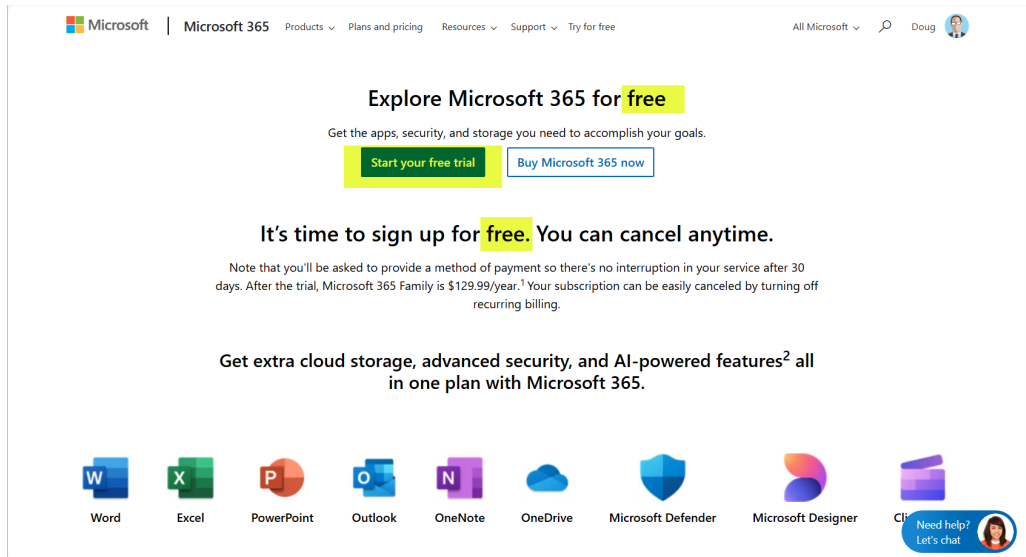
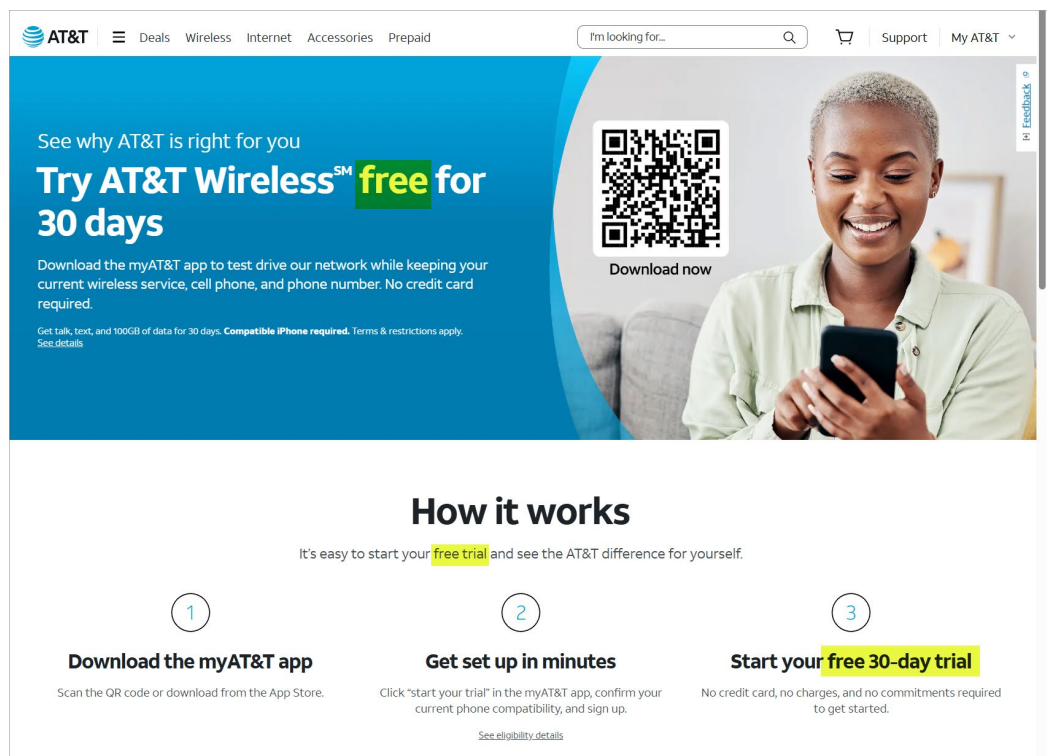**Figure 7:** *Microsoft's emphasis of "Free" (highlights added)*

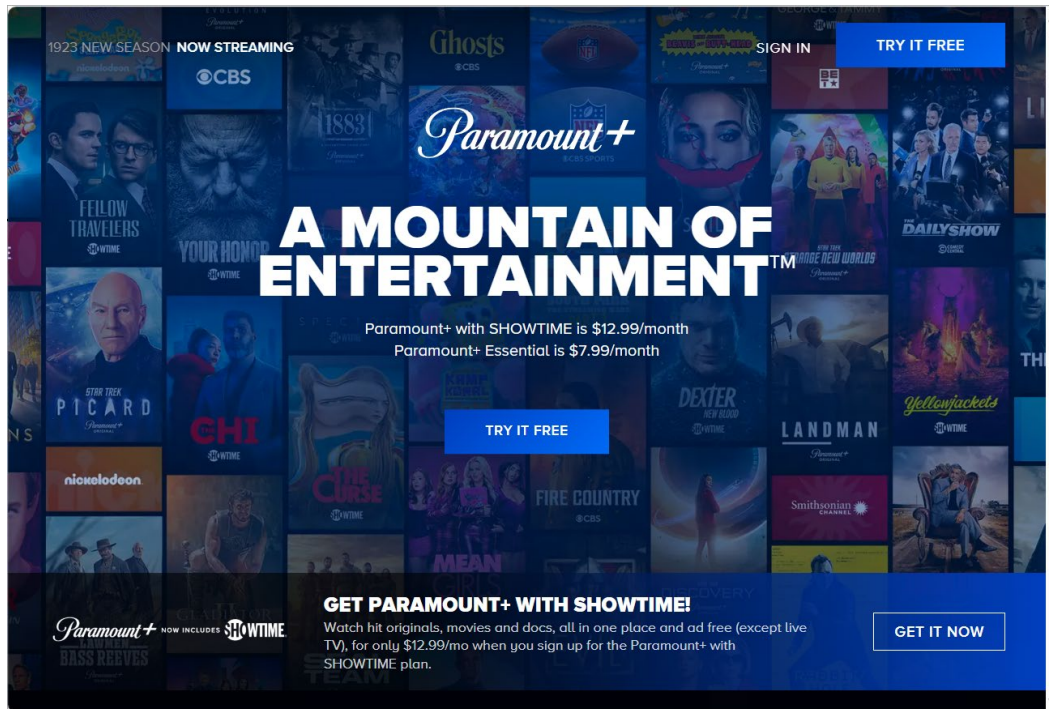**Figure 8:** *AT&T's emphasis of "Free" (highlights added)*

23

Figure 9: *Paramount+ Free Trial (note the two "Try It Free" buttons)*

3.4.2   UPDP and SOSP on Desktop and Mobile Devices

46.   I reviewed Dr. Chetty's overview and cognitive walkthrough of the Universal Prime Decision Page (UPDP) and Ship Option Select Page Prime Decision Page (SOSP PDP) on desktop and mobile devices. She provides these representative screenshots of the UPDP and states that the "SOSP PDP page is virtually indistinguishable from the UPDP" (¶ 135):
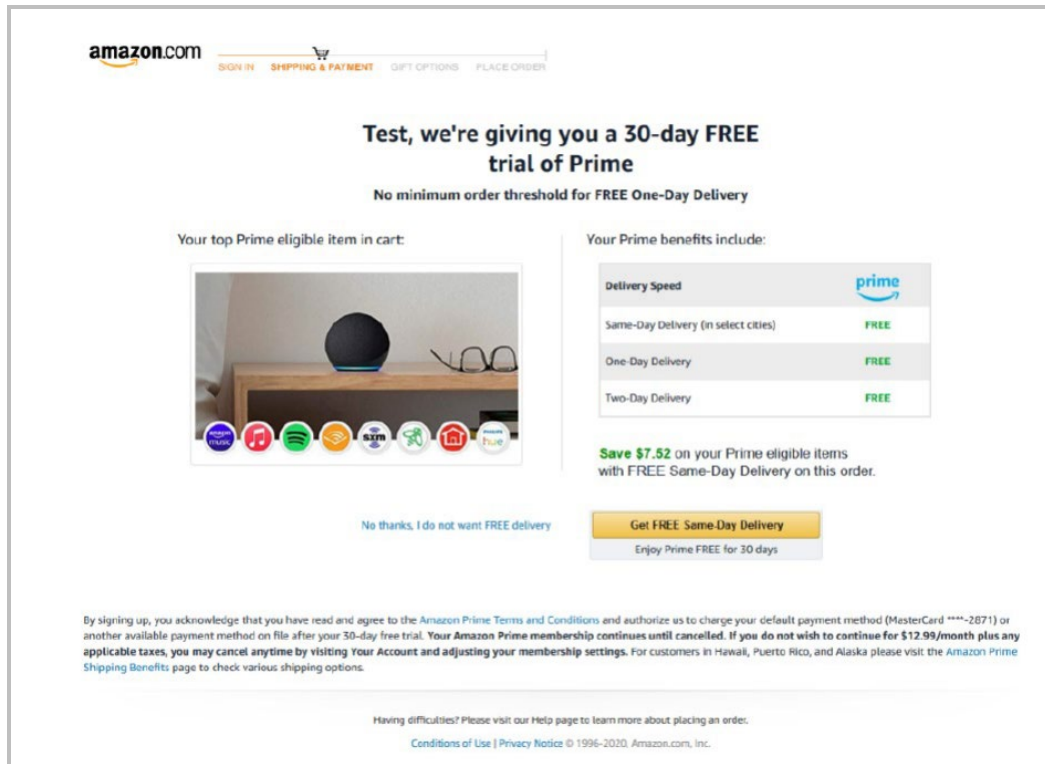
Figure 10: *Universal Prime Decision Page (UPDP) on Desktop (Figure 8 from Chetty Report)*
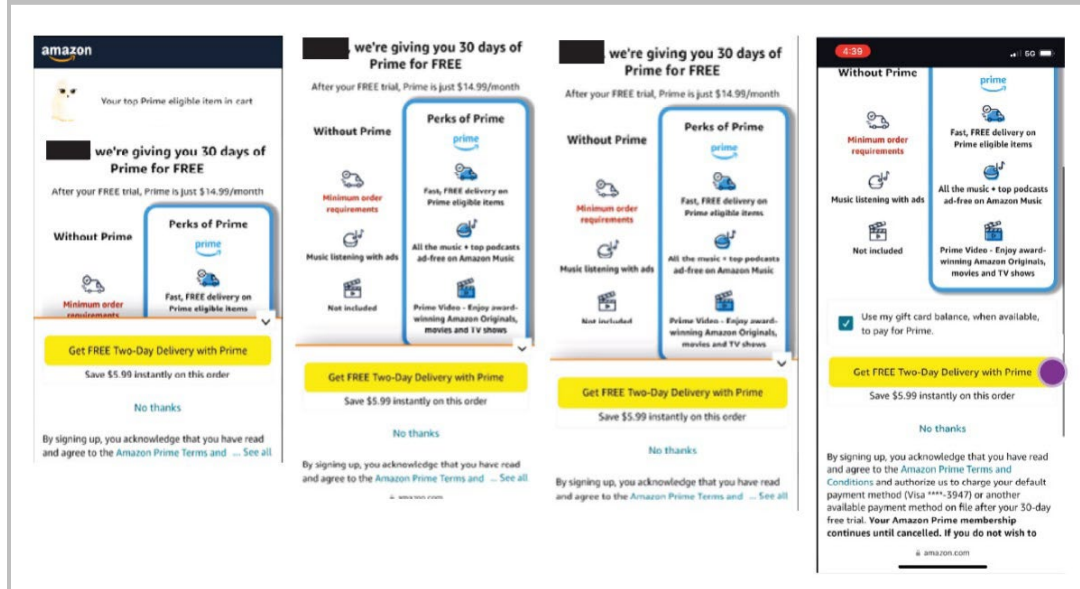
Figure 11: *Universal Prime Decision Page (UPDP) on Mobile (Figure 9 from Chetty Report)*

47.   Regarding these screenshots, Dr. Chetty states at ¶ 116:

25

> *The UPDP essentially interrupts the consumer's shopping process by presenting them with information on a subscription service—Prime—separate from the product they are buying. The only information that appears on the UPDP and is salient to a consumer's goal of making a purchase is the "fast, free" shipping that comes with a Prime subscription.*

48.   This statement demonstrates a bias that an offer of Prime membership is not desirable to Amazon customers. But this is contradicted by the fact that a sizeable number of in the U.S. are Amazon Prime members.[18] This indicates that Prime is a highly valued and desirable service and subscription. Further, Amazon primarily sells products online, so shipping is part of most items that Amazon sells—it cannot be separated from the product the consumer is buying. Thus, the Prime subscription does not "interrupt" the checkout flow; rather, it is a logical part of the process, as Amazon is selling a service that makes all shipping free.

49.   Dr. Chetty states that because "the other pages collect necessary information for the purchase, such as . . . shipping preferences and method," "[t]he UPDP is therefore unnecessary to placing an order for a product, and the interruption is an example of the dark pattern, Nagging." (¶ 118). But in offering a free Prime subscription, Amazon reminds customers about a feature that many customers find beneficial. In addition, the offer to join Prime is timely and meaningful. Pitching Prime during the checkout flow is appropriate, as choosing a shipping option is part of every checkout flow, and Prime includes free shipping for the user. Further, the so-called dark pattern which Dr. Chetty calls 'nagging' is a common practice. Dr. Chetty herself admits that nagging has "*been found in numerous domains including account deletion interfaces and social media more generally.*" (¶ 55(1)(c)).

50.   According to Dr. Chetty:

> *Another manipulative effect on the UPDP page is the emphasis on the word "free," which Amazon often emphasizes by using all-caps letters, bold font, and repetition. In fact, the word "FREE" can appear at least nine times on the UPDP alone.* (¶ 121).

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[18] Mosby, A. (2025), "Amazon Prime Statistics 2025 (Subscribers & Revenue)," *Yaguara.co*, https://www.yaguara.co/amazon-prime-statistics/.

51.   Stating that something is free has been a common practice for a long time, as I discussed above. Dr. Chetty presents no empirical evidence to support the implied assertion that this meaningfully affects user behavior and ignores the strong evidence that emphasizing that something is free is a standard design practice.

52.   She goes on to state:

> *The wording of the decline option elicits negative feelings from consumers. For instance, the option to decline Amazon Prime Delivery is often worded as "No thanks" or "No thanks, I do not want fast, FREE delivery," which could lead users to click on the enroll option to avoid feeling shame and the sense that they are not being financially sensible and potentially losing money on shipping.* (¶ 122).

53.   It is unreasonable to assert that phrases like "No thanks" or "No thanks, I do not want FREE delivery" constitute shaming or would provoke feelings of regret or "shame" in a rational consumer. Dr. Chetty presents no empirical evidence to support the claim that these statements would elicit such negative emotions. Nor does she present any evidence that experiencing negative emotions would cause a user to change their decision-making such that they are being coerced, rather than simply being persuaded.

54.   In addition, Prime membership is financially sensible for many Amazon customers, especially frequent Amazon customers. This is evidenced by the fact that many people in the United States are Amazon Prime members.

55.   As noted by Amazon's own former UX researcher Reid Nelson, "No thanks" links are "*a fairly common marketing practice in the industry*."[19] In fact, the FTC's own website provides a similar example of such a "No thanks" link. As you navigate from page to page on the FTC's website, a pop-up will appear asking you to take a survey. The survey uses a less prominent, "No, Thanks" link, rather than a button, for opting out.

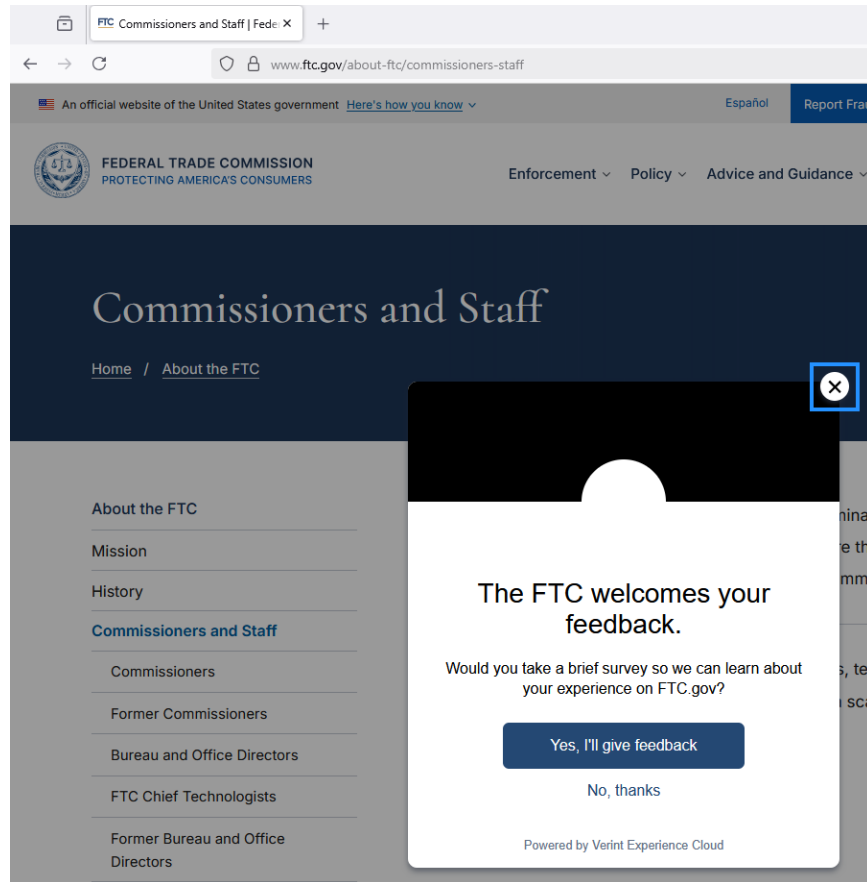[19] Deposition of Reid Nelson at p. 113:18-19.

Figure 12: *Example of a "No thanks" Option from the FTC Website*

56.   Dr. Chetty states (at ¶ 123):

> *Amazon also uses visual manipulation in the design of the options to accept or decline Prime, including the positioning, framing, sizing, and wording of the options. The enroll option always appears in the form of a yellow/orange button, usually with a gray shadow underneath, giving the impression of a double-stacked button. The decline option is often a blue hyperlink with no framing of any kind. The enroll option is visually brighter and more appealing than the decline one. The visual asymmetry between the two options creates an imbalance that favors the enroll option. Users are therefore naturally more drawn to the visuals of the enroll option than to those of the decline option.*

57.   Here, she is referring to the perceived visual prominence of the enrollment button and infers that user behavior will be affected without providing any empirical evidence to support it. Yet this is a very common UX design practice and shows more value associated with the enrolling option.

28

Indeed, it is present in the screenshot above of the FTC's own website. It is also found across industry checkout flows. For example, the below screenshot from the Walmart checkout process (featuring an upsell to Walmart's paid subscription service, Walmart+) shows that "Confirm your offer & get Early Access" is emphasized in blue whereas the "No thanks" option is in white. Similarly, Macy's emphasizes the "Click to Claim 25% Off" more than the "Decline Offer" link. And Target similarly places significantly more visual emphasis on the "Subscribe" option. These are only several examples of many that can be found among large retail companies that are easily found on the web:
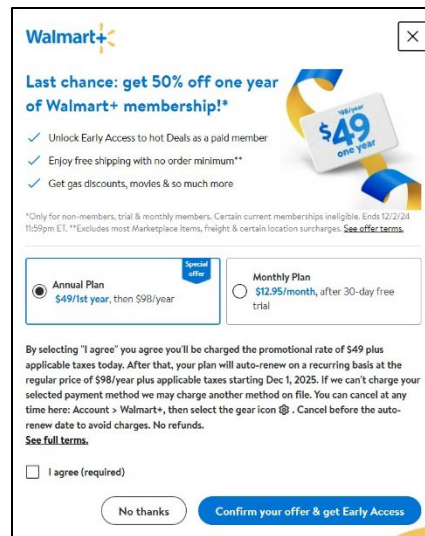
Figure 13: *Emphasis on the Confirmation Option on the Walmart Website*

Figure 14: *Emphasis on the Confirmation Option on Macy's Website*

Figure 15: *Emphasis on the "Subscribe" Option on the Target website*

58.   Dr. Chetty states:

> *Even more troubling is the fact that the consumer must either accept or decline the Prime subscription (often disguised as "fast, free shipping") to continue their shopping experience. This is, in essence, a Forced Action dark pattern.* (¶ 126).

59.   The customer is not being "forced" to do anything. It makes sense for Amazon to offer Prime during the checkout process, and to confirm the customer's decision on the UPDP. As I explained above, shipping is part of every Amazon order and the decision to enroll in Prime affects the shipping costs of that current order, and each and every order going forward. The offer to enroll in Amazon Prime at checkout is therefore relevant and timely because a decision at this point to enroll in Prime will affect shipping costs for that order. This means a reminder regarding Prime must appear before checkout is complete, not after. Below are other examples of Dr. Chetty's so-called "forced actions."
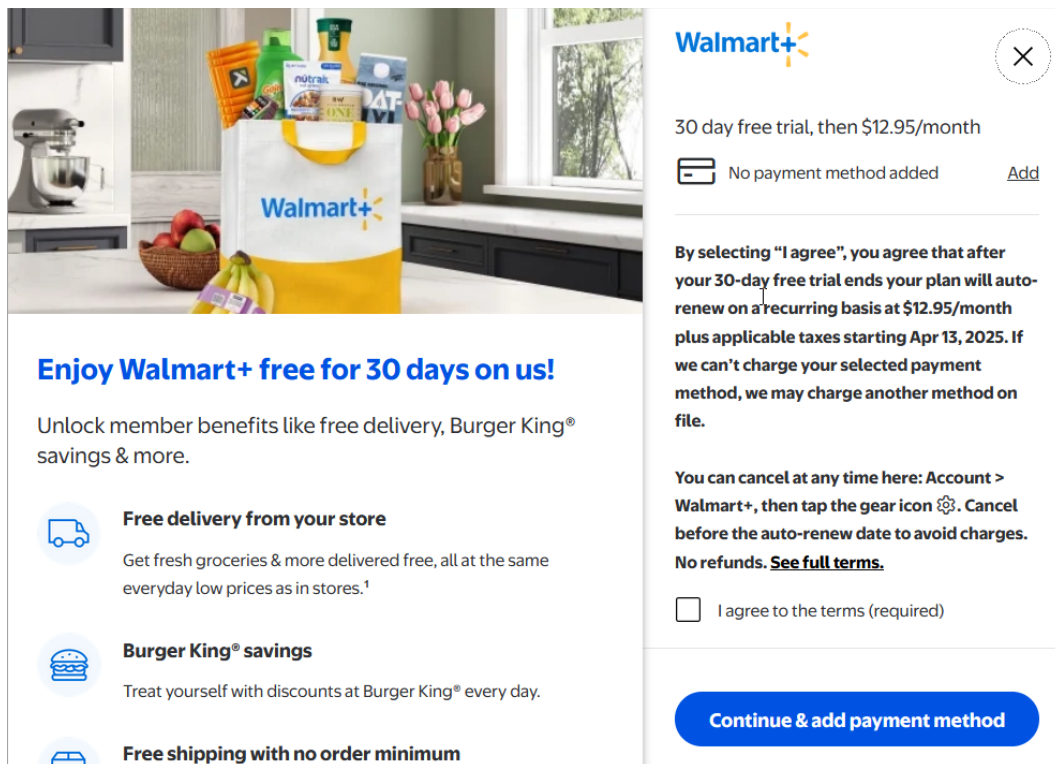

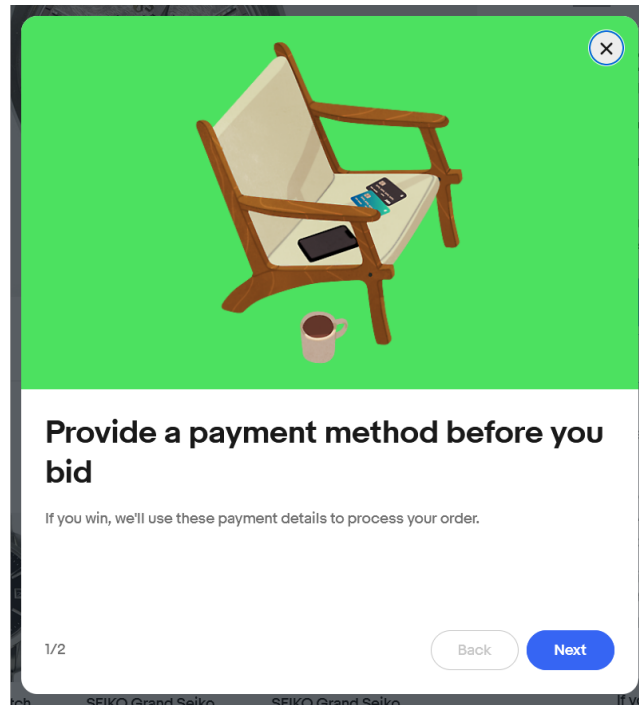**Figure 16:** *When Clicking on "Flash Deals," Walmart has a "Forced Action" to join Walmart+*

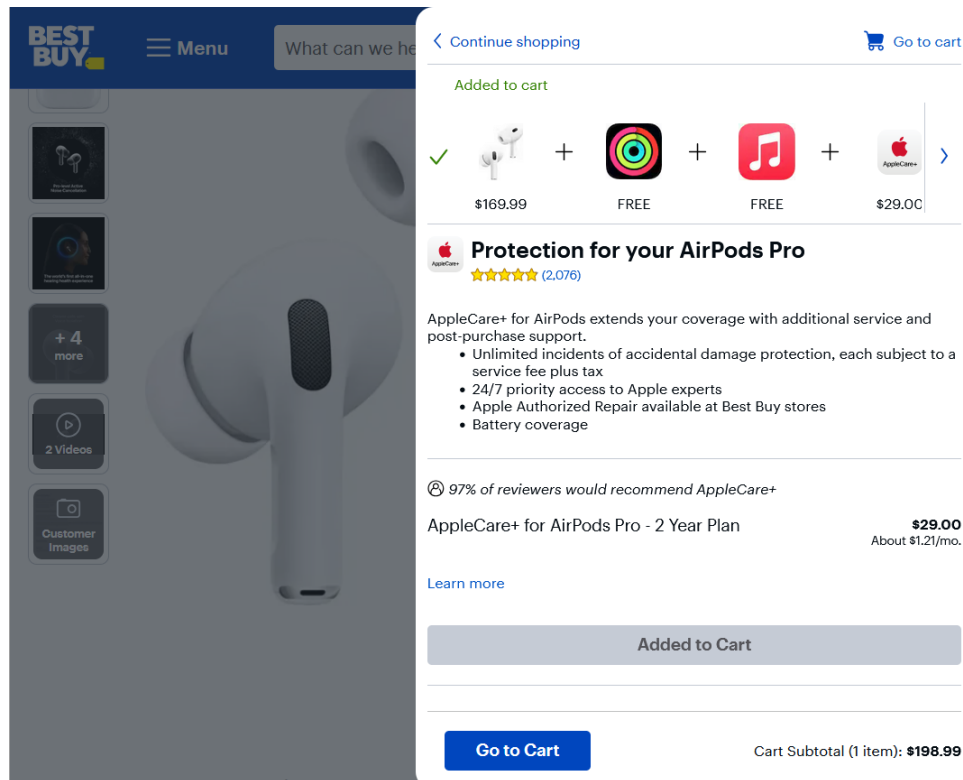**Figure 17:** *eBay has a Forced Action to Enter a Payment Method Before Bidding*

Figure 18: *Best Buy Automatically Adds Protection to Your Cart when Purchasing AirPods Pro. The "Forced Action" is to remove it, which must be done on the next screen in the shopping cart.*

60.   Dr. Chetty goes on the state:

> *Even then, the consumer would need to look carefully at the page to find the terms and conditions, which are generally tucked in a small font at the bottom of the page.* (¶ 126).

In ¶ 192 she also labels this pattern as the so-called dark pattern "Sneaking."

61.   Yet, her own Figure 8 (¶ 112) shows that the terms and conditions are not "*tucked . . . at the bottom of the page.*" (¶ 126). The paragraph extends across the entire page width, with pricing information highlighted in bold. In fact, Dr. Chetty acknowledges that the UPDP discloses "*the fact that a Prime free trial would automatically renew and convert into a paying membership, and the price of that membership.*" (¶ 110).
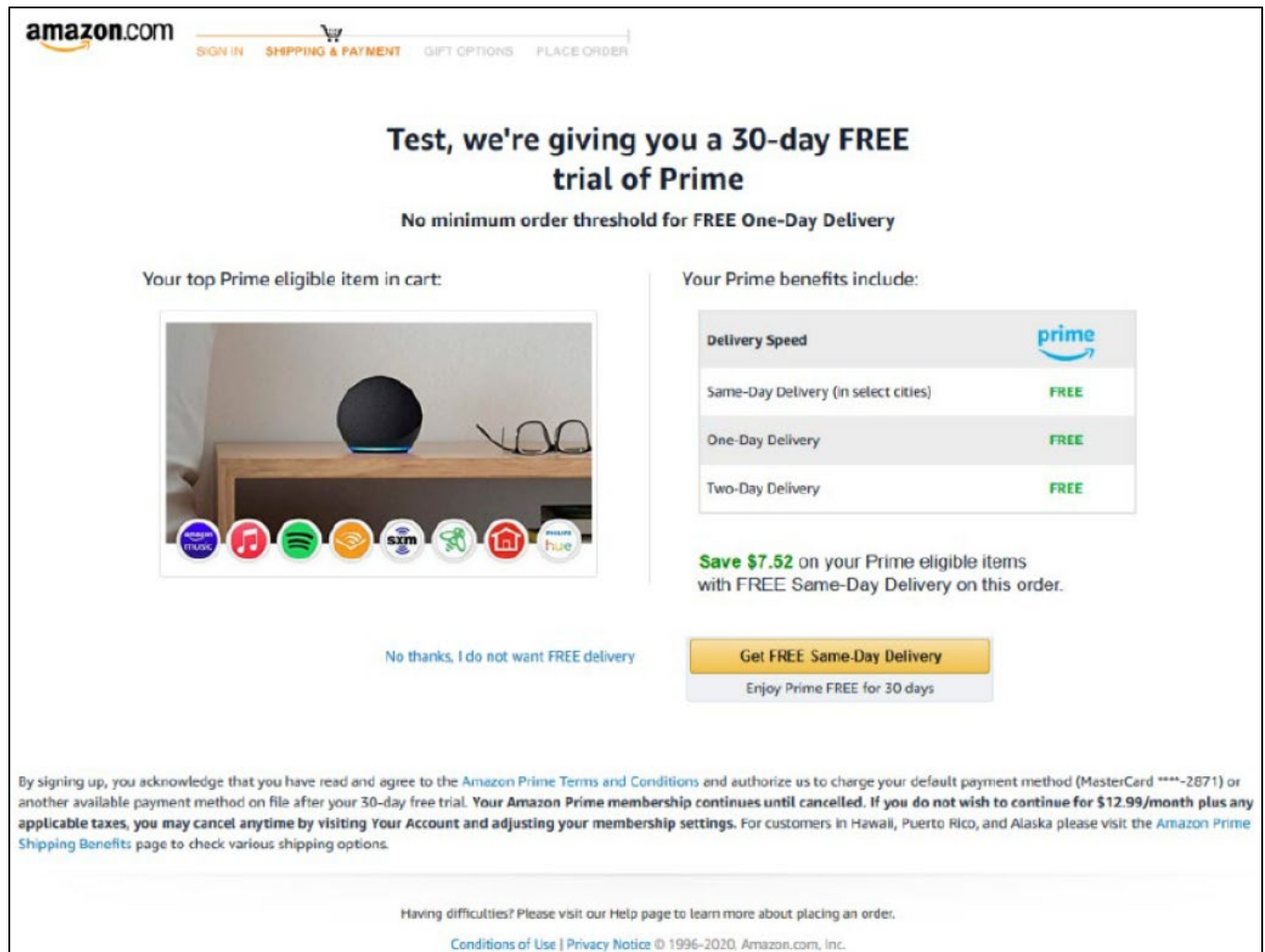
Figure 19: *UPDP Free Trial on Desktop (Figure 8 from Chetty Report)*

62.   Moreover, this placement of terms is quite common. Terms and conditions and privacy statements tend to be lengthy and infrequently read by consumers, so they are often presented in small font to avoid taking up too many pages and to reduce scrolling. On many e-commerce sites, they are less prevalent than they are on Amazon. In the screenshot below, we see that Wayfair hides them behind a "Learn More" link in the lower right.
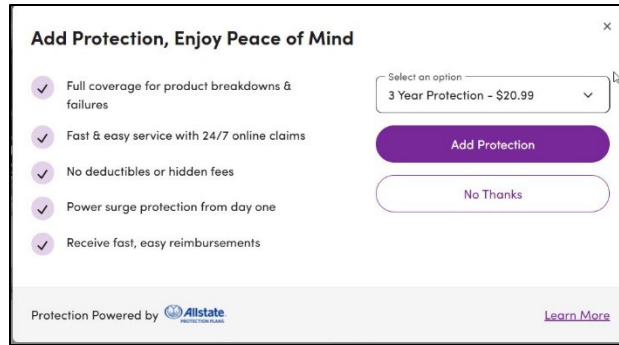
34

Figure 20: *Terms and Conditions Hidden Behind a Link on Wayfair*

63.   Netflix puts terms and conditions in the footer along with eight other links. Moreover, the footer may not be visible depending on the size of the window, even though there appears to be space for the footer.
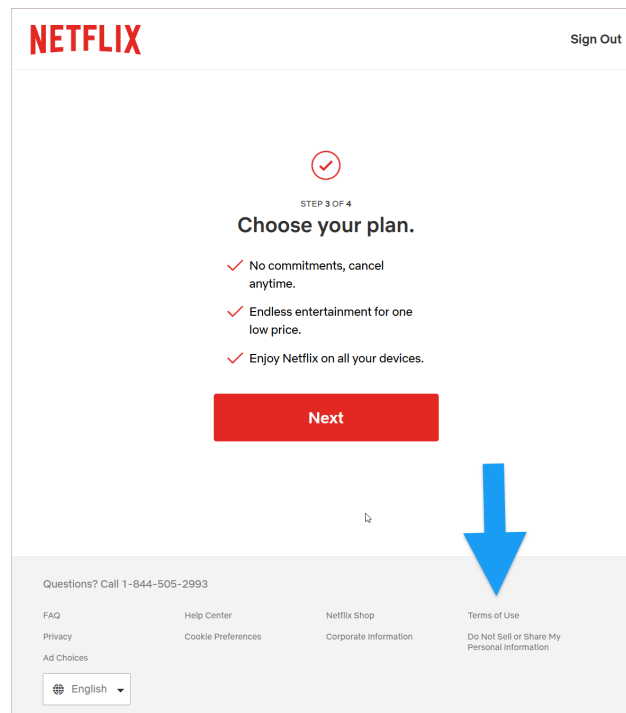

Figure 21: *Netflix Terms of Use De-Emphasized and Shown in the Footer (See Blue Arrow Annotation)*
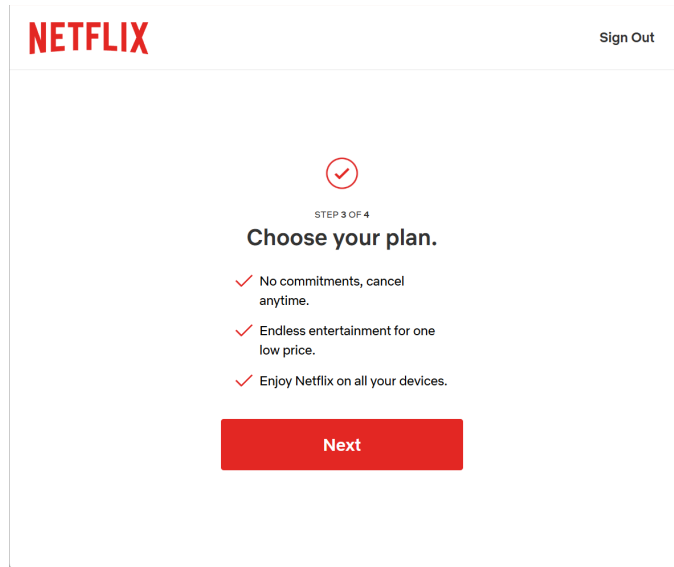
35

Figure 22: *The Netflix Footer Drops Below the Fold as the Window is Resized*

64.   Hulu presents summarized terms and conditions in a manner similar to Amazon, summarized in text at the bottom of the screen with cost information bolded. A link is provided to the full terms and conditions as part of the summary.
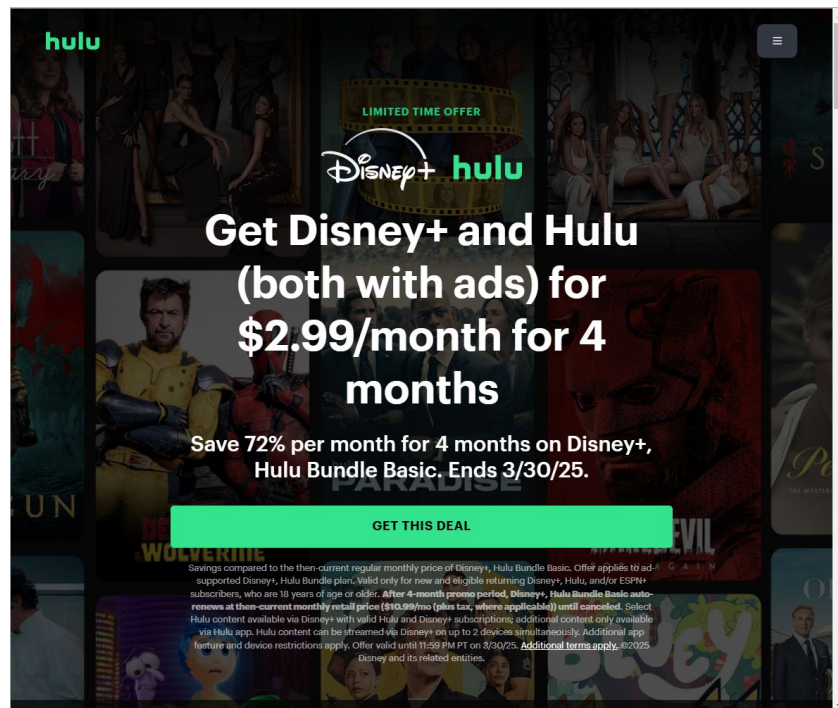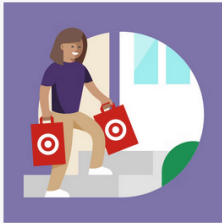

Figure 23: *Hulu Terms and Conditions*

36

Figure 24: *Target Circle 360 Membership Enrollment. The terms and conditions are indicated with the blue arrow. On many screens they will be below the fold, meaning that the user must scroll the page to read them.*

65.   Regarding the mobile UPDP page, she states (at ¶ 128):

> *The design of the UPDP for a mobile device is even more manipulative than the desktop version. Like the desktop UPDP, there is insufficient information with respect to the Prime subscription on the mobile UPDP. Attachment B, Mobile UPDP. One particularly bad design that hides information from users capitalizes on the fact that users need to scroll down the page, past all of the information regarding Prime benefits, to see Prime's terms and conditions, where Prime's cost and renewal terms generally are buried.*

66.   Dr. Chetty's analysis disregards the design constraints interface designers face regarding mobile screens. It would not be possible to put the terms and conditions on the same page due to screen size constraints. Yet Dr. Chetty attributes this design decision to an intent to deceive the user. It should be further noted that the terms and conditions are *not* "buried" – they appear directly below the "No Thanks" option. It seems that Amazon chose to emphasize the benefits of Prime by placing them above the terms and conditions, which is a very common industry practice (i.e., a design pattern consumers are very familiar with). For example, Target's mobile site places the terms and conditions at the bottom of the screen during account creation and provides only a small font link to the terms and conditions, giving them much less emphasis than Amazon.
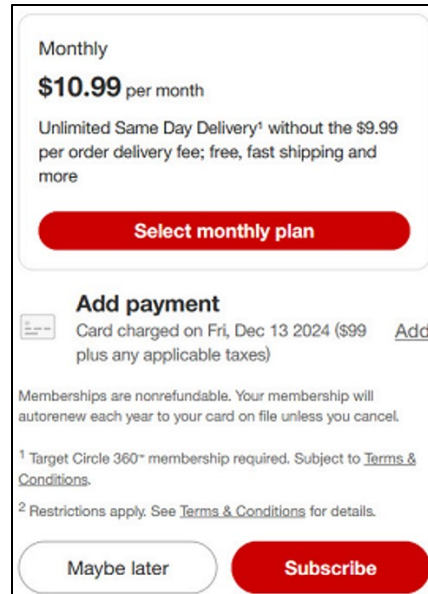
Figure 25: *The Terms & Conditions Placed Behind a Link on the Target Mobile Website*

3.4.3   Single Page Checkout on Desktop

67.   I reviewed Dr. Chetty's overview and cognitive walkthrough of the Single Page Checkout (SPC) on desktop. She provides a representative screenshot below that is Figure 11 in her opening report.

Figure 26: *Single Page Checkout (SPC) on Desktop (Figure 11 from Chetty Report)*

68.   Dr. Chetty states at ¶ 144:

> *[T]he terms of the Prime subscription are largely missing from at least some versions of the SPC page. The SPC Stripe (the blue box) displays "[Name], we'd hate for you to miss out on unlimited fast, FREE delivery" and includes a button labeled "Try Prime FREE for 30 days" with, underneath it, "No hassle. No commitments. Cancel anytime.*

69.   The words, "No hassle. No commitments. Cancel anytime." are truthful marketing and represent a brief summary of Prime's terms. Also, given that the button itself says, "Try Prime FREE for 30 days," it informs the user that the free trial is only for 30 days. If something that is

40

free expires in 30 days, the user is informed that it is therefore not free after the 30 days have passed. In fact, given Dr. Chetty's finding and own opinion that customers do not read terms and conditions (¶ 119 [noting that "consumers frequently do not read" other terms and conditions]; ¶ 353(i) [user research subjects found to not read terms]), this simple restatement and presentation of these important aspects of the terms and conditions benefits customers, particularly compared to many sites where the entirety of the terms and conditions are hidden behind a link and no summary is offered (see the examples of Wayfair and Netflix shown above). Also, note that free shipping is available without enrollment in Prime, so Amazon provides options for those customers who do not desire Prime.

70.   Dr. Chetty then presents the below screenshot, Figure 12, as what the consumer sees after selecting the Prime option from the above SPC:

Figure 27: *SPC on Desktop After User Enrolls in Prime (Figure 12 from Chetty Report)*

71. Regarding the above, Dr. Chetty states (at ¶ 147):

> *Amazon buries the material terms of a Prime subscription in the terms and conditions section underneath the "Place your order" button on the top right of the SPC.*

72. But a summary of important aspects of the terms and conditions, including bolded pricing information, is placed in the upper right (indicated by the number 2 in the screenshot above), directly below the "Place Your Order" button – a prominent location on the page.

42

73.   Dr. Chetty again notes that the terms of Prime membership are presented in small print (¶ 155). But as I previously discussed, it is a very common industry practice to present terms and conditions in this manner for the above reasons.

3.4.4   True Single Page Checkout on Desktop

74.   I reviewed Dr. Chetty's overview and cognitive walkthrough of the True Single Page Checkout (TSPC) on the desktop. She provided a representative screenshot below:

Figure 28: *True Single Page Checkout (TSPC) on Desktop (Figure 14 from Chetty Report)*

75.   Dr. Chetty states:

> *Even when the amount that Amazon Prime will cost ($14.99/month) is shown, it is still not disclosed in an adequate manner for a user to be*

44

fully informed about the cost or recurring payments after a free trial ends. (¶ 167).

76.   I disagree that this is unclear, as the charge per month is clearly stated. In addition, the fact that the user's credit card will be charged after the 30-day free trial is also presented to the user on the same page. This summary of the Amazon Prime terms and conditions is presented for the user in a very clear and concise manner, with the most important disclosures bolded for the user to see. In fact, the disclosure even explains how to cancel the membership (and that this can occur any time). The summary of the Amazon Prime terms and conditions states, in part, that:

> By signing up, you acknowledge that you have read and agreed to the Amazon Prime Terms and Conditions and authorize us to charge your default payment method (Visa ****) or another available payment method on file after your 30-day free trial. **Your Amazon Prime Membership continues until canceled. If you do not wish to continue for $14.99/month plus any applicable taxes, you may cancel anytime by visiting Your Account and adjusting your membership settings**.
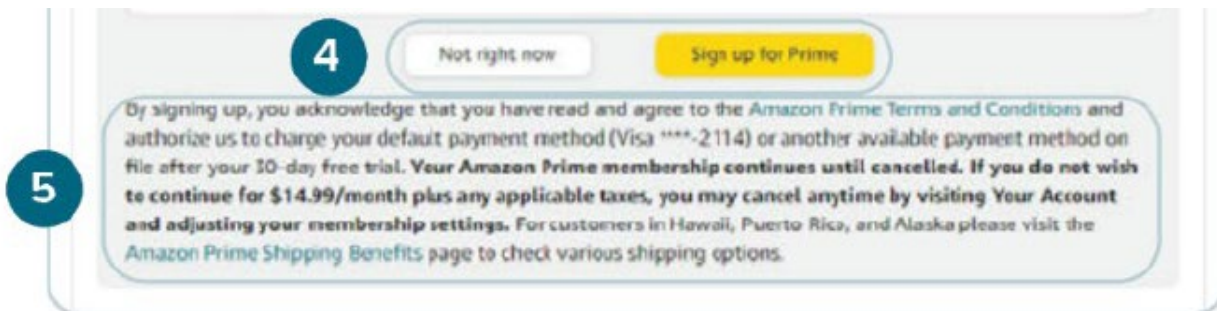
Figure 29: *Amazon Prime Terms and Conditions (Figure 14 from Chetty Report)*

77.   This is just part of the summary of the Amazon Prime terms and conditions that Amazon presents to the user and places directly next to the two buttons that record the user's choice of either "Not right now" or "Sign up for Prime."

78.   Dr. Chetty also states that "*this flow conflates two distinct tasks: buying a product on Amazon (which is the primary goal) and enrolling in Prime.*" (¶ 168). Yet, as I have stated earlier, it is appropriate, timely, and useful for the user to be offered Prime (if they are not already a Prime

member) in the middle of a purchase flow as enrolling in Prime will have a direct effect on that specific purchase (i.e., the possibility of the user receiving free shipping on that order).

79.   Dr. Chetty states:

> [A]lthough the cost of Prime and the renewal terms are listed and in bold, a user is likely to ignore this information since they do not typically read terms and conditions. (¶ 171).

But this critique is nonsensical. If listing the cost of Prime and its renewal terms in bold is still a "dark pattern" because users simply do not read terms and conditions, then there is no clarity measure that Amazon can implement that would not constitute a dark pattern for Dr. Chetty.

80.   Dr. Chetty further states, "*[i]t is also unclear what clicking 'Get FREE Prime Delivery with Prime' does.*" (¶ 172). In my opinion, it is clear that this button states that if the user signs up for Prime, then they will get free delivery as described on that page.

81.   It is important to highlight that Amazon has chosen not only to provide a summary of the much more extensive terms and conditions, but also to emphasize the pricing information by bolding it in that summary. As discussed in this report, many retailers do not provide a summary of the terms and conditions that can be viewed on the enrollment page. Rather, the user must click a link and navigate to a different page to see *any* details of the terms and conditions. Amazon is, in fact, extracting the most critical parts of the terms and conditions by providing a summary and then pointing the user's eye to the most important parts by bolding those parts.

82.   Dr. Chetty also comments on the default option to pay for Prime with a gift card:

> The interface also has a Bad Default in that the option "Use my gift card balance, when available, to pay for Prime" checked, meaning that even if the user's credit card is not charged their gift card balance if it exists will go towards a Prime subscription. This is also easily missed on this popover. (¶ 173).

83.   It is not clear why Dr. Chetty claims that this is a disadvantage to the customer. This option seems advantageous, as they will not be charged additional money beyond what they have already paid or have been gifted.

84.   Dr. Chetty also states that "*The TSPC also makes it harder to remove an Amazon Prime subscription than MPP [Multi-Page Pipeline]*" because they must change the subscription quantity from 1 to 0 (¶ 175). Dr. Chetty states (at ¶ 175):

> *In some ways, this makes it consistent with how a product is removed from the cart by making the "Qty" 0. However, since an Amazon Prime subscription is fundamentally different from a product, this is likely to confuse a user.*

85.   Consistency is one of the ten usability heuristics for good user interface design.[20] Dr. Chetty herself acknowledges consistency as one of the "foundational principles of good design." (¶ 33). For this reason, contrary to what Dr. Chetty opines, it would be *more* confusing if there were a unique way to remove Prime that differed from other items purchased from Amazon.

86.   Dr. Chetty again comments on the small size of the font in the terms and conditions (¶ 176) and that the shipping decision is not related to the primary task of making the purchase (¶¶ 179, 180, 181, and 183), which I have addressed above.

87.   She mentions "audio cues" in a conclusory fashion in ¶ 184: "*From a design heuristics perspective, the checkout interface contains insufficient prominent and conspicuous feedback—that is, visual or audio cues—to indicate to a consumer what action has been taken and what has occurred as a result, likely to confuse them.*" However, it is not clear from Dr. Chetty's report how she believes audio cues should be used on Amazon's desktop or mobile site and why their inclusion would give sufficient feedback to users.

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[20] Nielsen, J. (2024), "10 Usability Heuristics for User Interface Design," *Nielsen Norman Group*, https://www.nngroup.com/articles/ten-usability-heuristics/.

4.0 Cognitive Walkthrough of Prime Cancellation Flows

4.0   Methodological Flaws

88.   Dr. Chetty's "cognitive walkthrough" (or heuristic evaluation) of the Prime cancellation flows exhibits the same methodological flaws as that of the Prime enrollment flows discussed in the previous section.

4.1   Many of Dr. Chetty's So-Called Dark Patterns are Industry Norms

89.   Dr. Chetty notes that "*it takes more clicks for a user to cancel a Prime subscription than to enroll in one through the online product checkout flow.*" (¶ 283). It should be noted that Amazon allows users to cancel with only a few clicks, which is a standard industry practice. Websites providing one-click cancellation of paid services that were subscribed to are very rare. It is reasonable for a company to tout the benefit of the subscription, offer alternatives, and confirm that the user wants to cancel before canceling the service to show the user the value of the service that they are considering canceling and to prevent inadvertent cancellations.

90.   Apple also prompts users to confirm cancellation multiple times and may not even allow the customer to cancel through the website but rather requires the customer to contact Apple Customer Support.
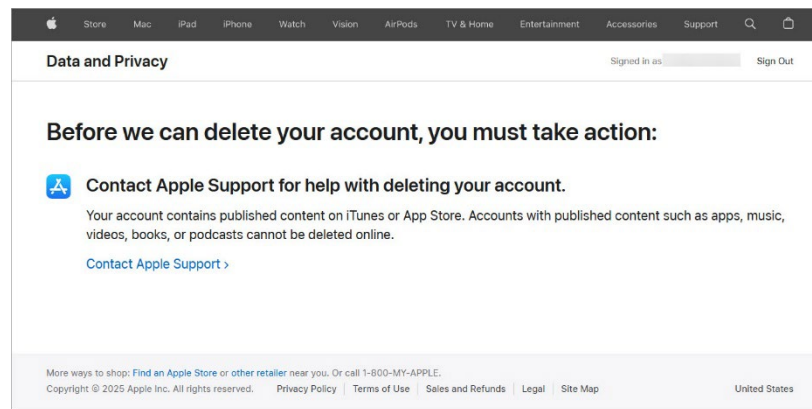
Figure 30: *Apple Cancellation Verification*

91.   Amazon's former UX Researcher Reid Nelson agreed with this statement:[21] *"[A]t three clicks to cancel, the cancel flow is similar in length to other programs and offers customers a chance to switch plans or pause membership before canceling."*

92.   Providing retention offers before cancellation (sometimes called "save" offers) is standard practice across industries. In fact, consumers sometimes use cancellation as a chance to negotiate for a better deal. This is very common in subscriptions offered for newspapers, magazines, cable providers, cell phone service, internet service, and similar services. It is also my understanding from counsel that the FTC itself has recently recognized that, in the context of "save" offers, truthful marketing communications can benefit consumers by (i) allowing them to "obtain valuable concessions (e.g., lower prices), which they would otherwise want" and (ii) confirming their intent to cancel or "appris[ing] [them] of any negative consequences of cancellation."[22]

93.   By verifying that the customer truly wants to cancel and notifying them of the additional benefits associated with having a Prime membership[23] (free shipping, Prime Video, Amazon Music, Prime Gaming, Amazon Photos, etc.), Amazon is attempting to find a situation where they and the customer will both benefit. Customers are less likely to cancel by mistake and may go away happy with a better deal on Prime via a yearly subscription.

94.   Other organizations have similar practices. See below for examples from the New York Times, Hulu, and Tidal.

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[21] Deposition of Reid Nelson, February 27, 2025 at p. 234:24-235:1.

[22] "Negative Option Rule," Federal Register, November 15, 2024, https://www.federalregister.gov/documents/2024/11/15/2024-25534/negative-option-rule.

[23] "Amazon Prime," https://www.amazon.com/gp/help/customer/display.html?nodeId=G6LDPN7YJHYKH2J6.

Figure 31: *The New York Times Provides Options and Requires Multiple Clicks to Reach Cancellation*
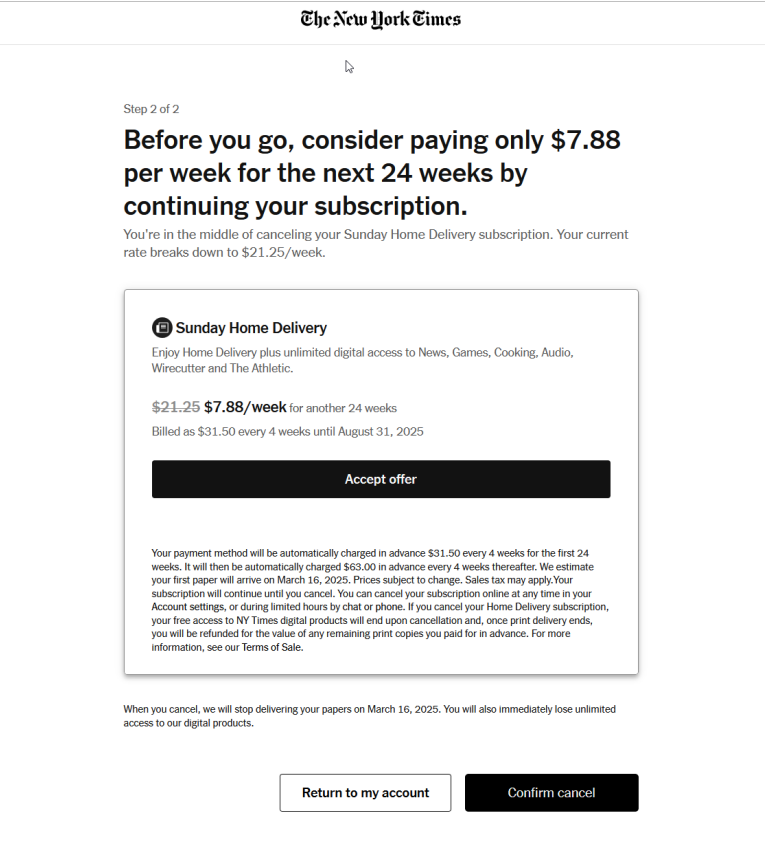
Figure 32: *The New York Times Provides Options and Requires Multiple Clicks to Reach Cancellation*

Figure 33: *Hulu Offers a Pause Subscription Option for Customers Interested in Cancelling (highlight has been added)*
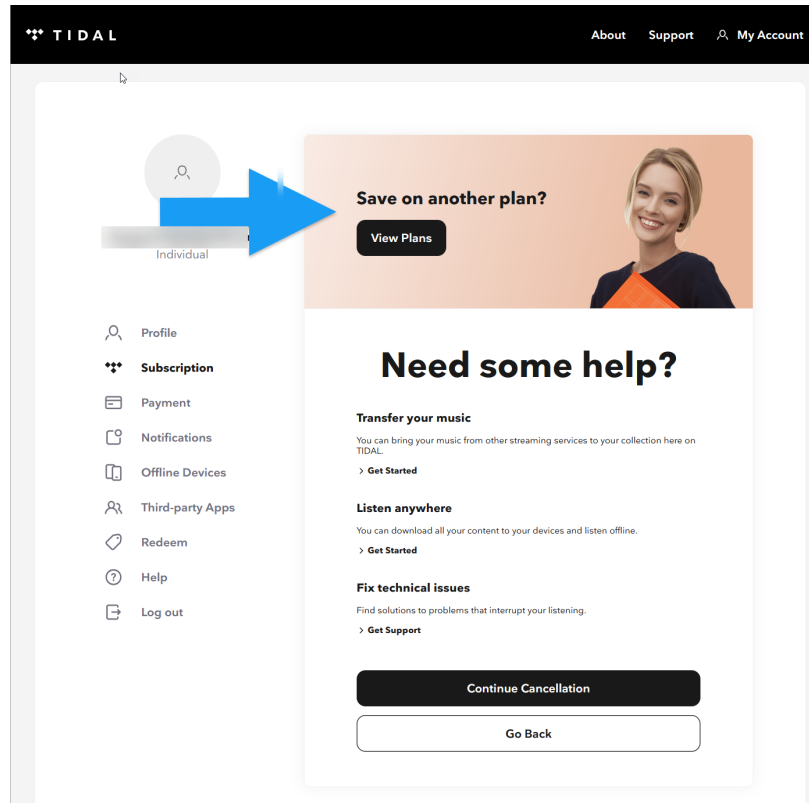
Figure 34: *Tidal Offers the Option to "Save on Another Plan" for Customers Interested in Cancelling*

4.2   Dr. Chetty's Own Report Highlights Subjectivity of "Dark Pattern" Identification in Cancellation Flow

95.   Dr. Chetty repeatedly states that Amazon makes it "*harder than necessary*" to finalize cancellation because it provides multiple options for canceling (e.g., pausing membership, canceling upon next renewal) (*see, e.g.*, ¶¶ 220, 235), but this is a subjective judgment and assumes that consumers are only interested in canceling outright.

96.   Given Dr. Chetty's criticism of Amazon for providing multiple options for canceling, providing fewer options could be construed as employing a dark pattern. Dr. Chetty defines dark patterns at ¶ 36 as "*user interface design choices that coerce, deceive, or manipulate users into making a decision that, if fully informed or otherwise capable of selecting an alternative, they would not have made.*" Given this definition, if Amazon only presented two binary options to users: cancel or don't cancel, Amazon could be accused of using dark patterns by not providing

53

the full slate of cancellation options to users, or "obstructing" users who only want to pause their membership.

97.   Moreover, the FTC's own definition of an acceptable cancellation flow is subjective and poorly defined. In her deposition testimony regarding cancellation, FTC witness Amanda Basta was unable to say what would constitute a legally compliant cancellation flow:[24]

> *Q. Okay. So then just to be clear, with respect to figuring out whether a cancellation mechanism is simple, you couldn't identify sort of objective quantitative criteria that you could say, I've checked these boxes. It makes the mechanism simple.*
>
> *Is that fair?*
>
> *A. Yes.*

98.   She also indicated that any assessment of a compliant cancellation flow would be complex:[25]

> *Q. The FTC has identified a list of 20 some-odd factors that it considers in determining whether or not a cancellation method is simple under ROSCA; correct?*
>
> *A: Yeah. The only reason I'm hesitating is, is like I said, not everything will be present in every -- in every mechanism. So the ones that would apply I would say it's fair to say that we consider.*

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[24] Deposition of Amanda Basta, September 10, 2024, at p. 77.

[25] Deposition of Amanda Basta, September 11, 2024, at p. 77:2-12.

4.3   Rebuttal of Each Individual Cancellation Flow

4.3.1   Iliad Cancellation on Desktop and Mobile

99.   Dr. Chetty addressed the Iliad cancellation flow and provided the following image depicting this flow.
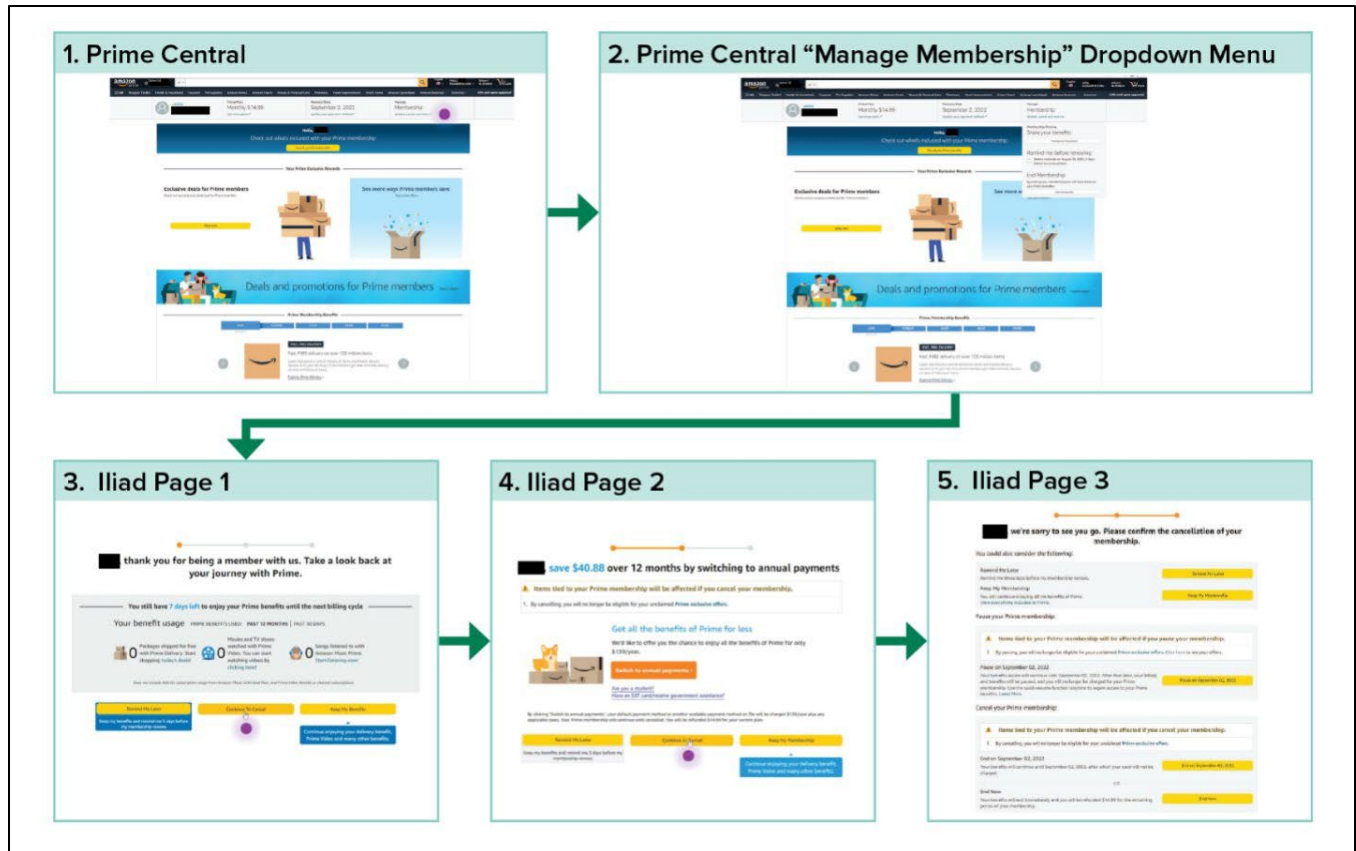
Figure 35: *Iliad Cancellation Flow on Desktop (Figure 16 from Chetty Report)*
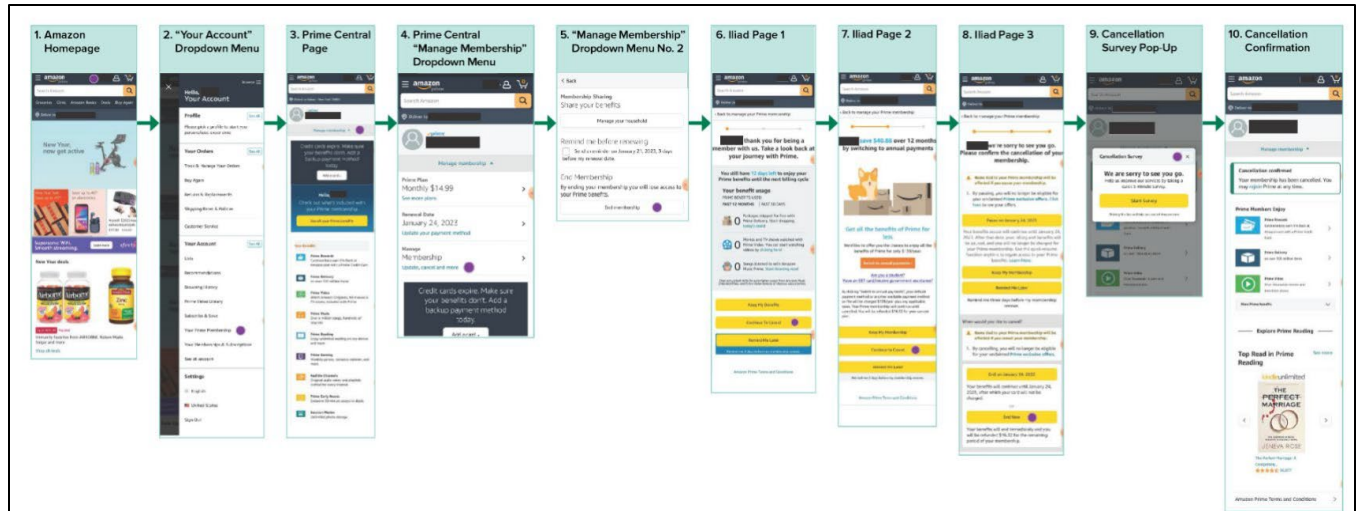
Figure 36: *Iliad Cancellation Flow on Mobile (Figure 17 from Chetty Report)*

100.   Dr. Chetty claims that the cancellation process is difficult to find (¶ 361(iii)). Yet Amazon provides clear paths to cancellation in multiple ways, including a button in the membership settings, search functionality for canceling using the Help Center when searching for "Cancel Prime," and direct links via customer service and email reminders. Information regarding cancellation is available via means consistent with other online shopping sites. In fact, she states (at ¶ 209):

> *The FTC asked me to assume that typing "cancel membership" in the search bar on a mobile device yields a similar pathway to the cancellation process as on a desktop.*

101.   This indicates that the FTC – and Dr. Chetty – acknowledge that cancellation on mobile can be found in multiple conventional ways.

102.   Dr. Chetty states that "*all users may not intuitively know that they need to click on 'Manage membership' to access the dropdown menu and move forward in the cancellation process*." (¶ 212). She also says that "Manage Membership" is in a "*hidden dropdown*" (¶ 213) and labels it as a "Creating Barriers" dark pattern. But this design used by Amazon is a common user interface design convention, which uses drop-down menus with a "Manage membership" option where users can then manage their subscriptions. This design should be clear and familiar to most users.

Below are examples of other websites which use similar drop-down menus to access account management settings.
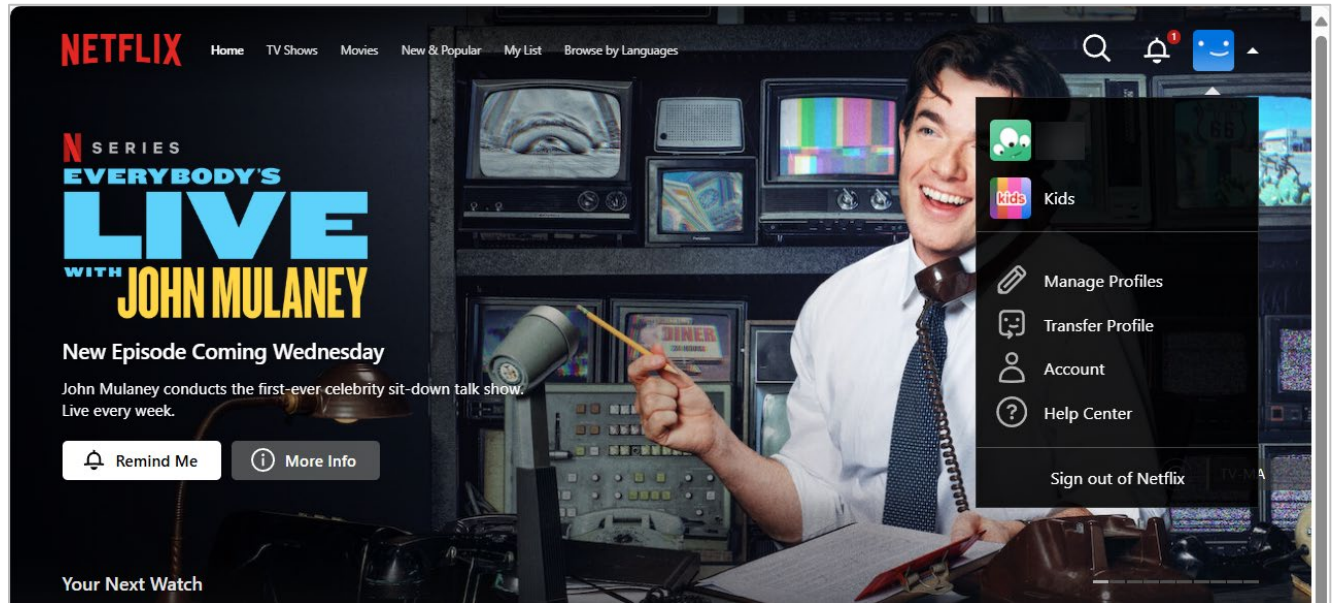
Figure 37: *Account Management Settings Accessed via a Similar Drop-Down Menu (Netflix)*
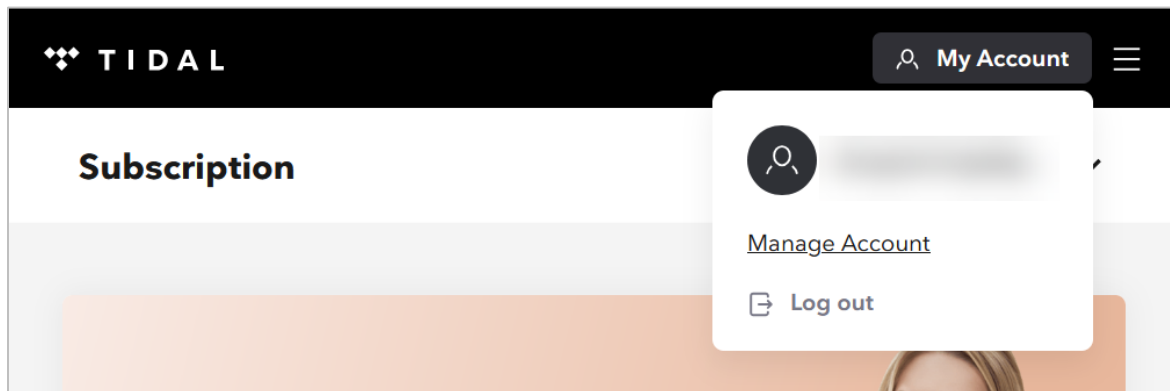
Figure 38: *Account Management Settings Accessed via a Similar Drop-Down Menu (Tidal)*
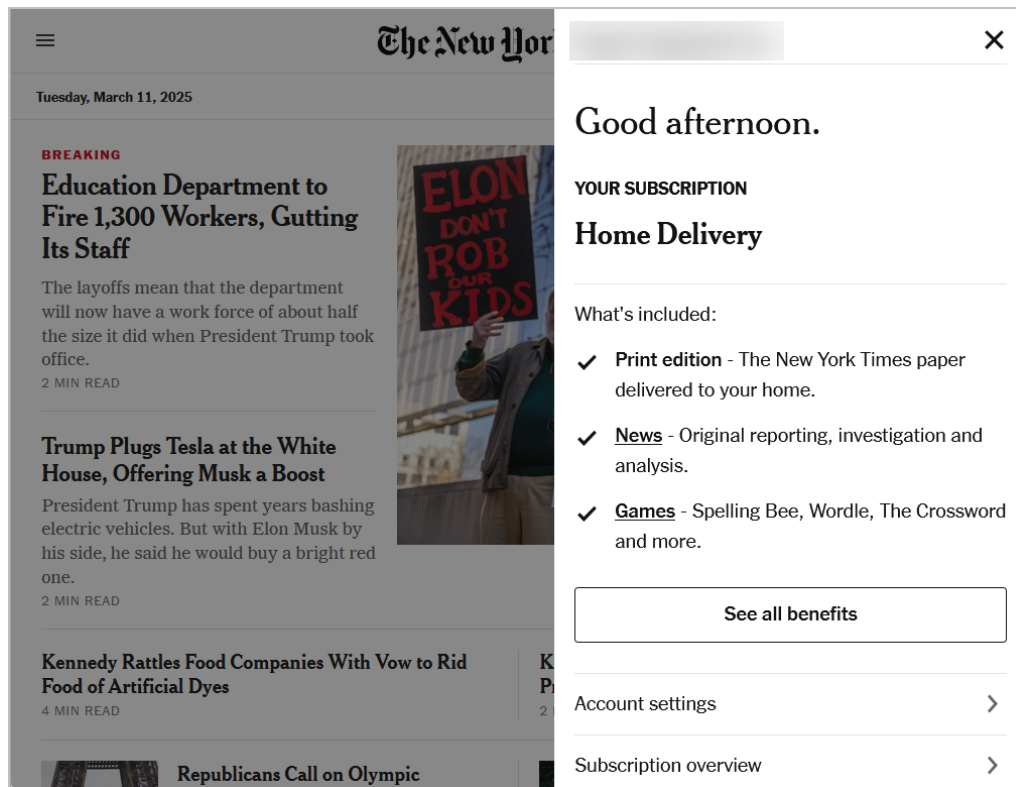
Figure 39: *Account Management Settings Accessed via a Similar Drop-Down Menu (The New York Times)*
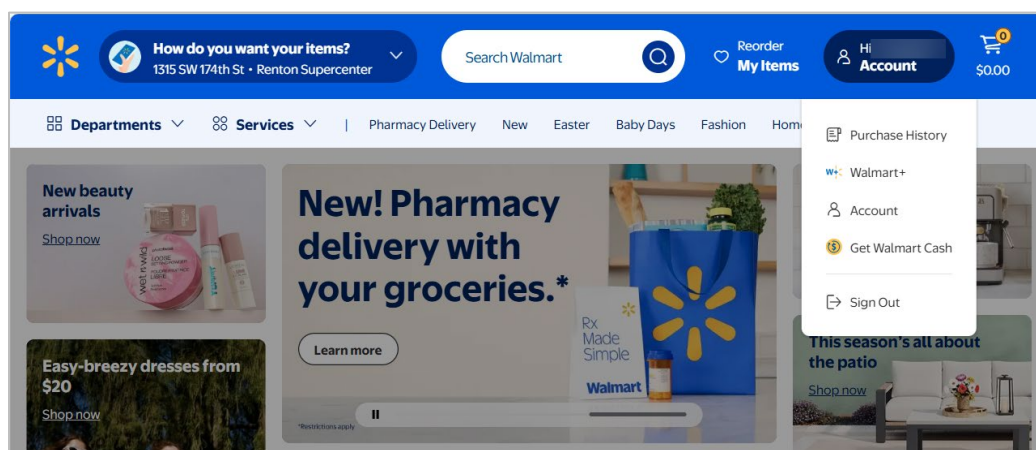
Figure 40: *Account Management Settings Accessed via a Similar Drop-Down Menu (Walmart)*

103.   Similarly, this design interface, in which users use a dropdown menu found at the top righthand corner as an ingress to managing their account settings, is used by many of the most

58

popular social media platforms, further supporting the likelihood that most Amazon consumers would be familiar with this design. A few examples from Facebook, LinkedIn, and YouTube can be found below:
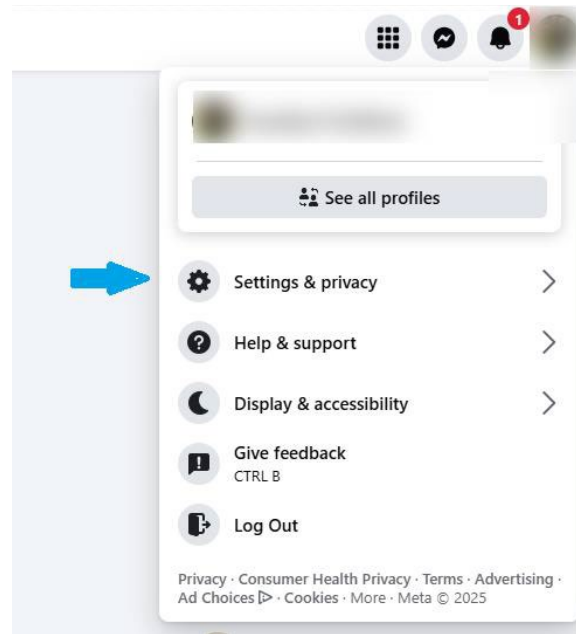
Figure 41: *Facebook Account Settings are Accessed Through Dropdown Menu in Top Righthand Corner*
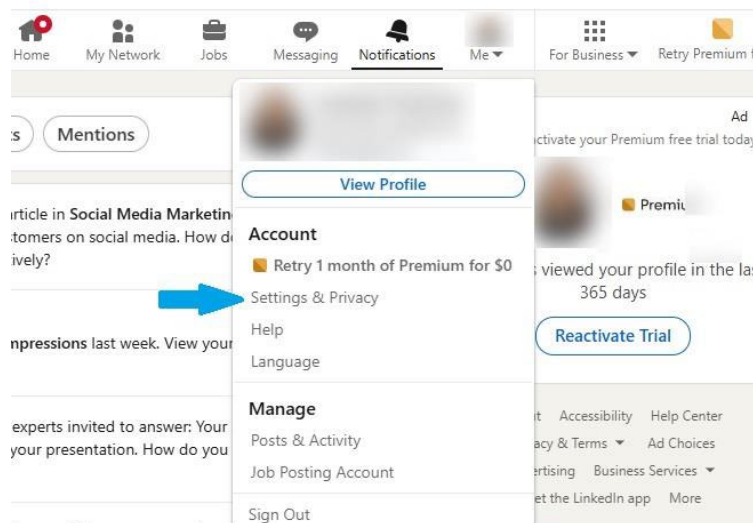
Figure 42: *LinkedIn Account Settings are Accessed Through Dropdown Menu in Top Righthand Corner*

59
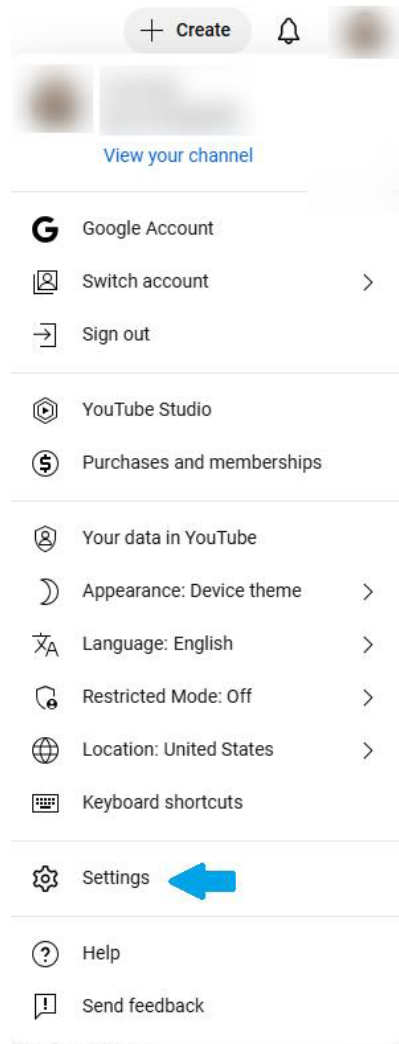
Figure 43: *YouTube Account Settings are Accessed Through Dropdown Menu in Top Righthand Corner*

104.   Moreover, as mentioned previously, it is simply the case that no single user interface convention will be clear to *all* Amazon users given the extremely large number of Amazon customers. Such confusion at the margins is unavoidable and is not the result of so-called "dark patterns."

105.   Dr. Chetty states the following (at ¶ 212):

> *Moreover, the words associated with the "End Membership" option, which are "By ending your membership, you will lose access to your Prime benefits," emphasizes the loss that a user might experience if they*

60

> *choose to move forward with that option, thus discouraging the user from proceeding. This is an Interface Interference dark pattern.*

106.   This is the equivalent of an "Are you sure?" confirmation button designed to avoid an unintended cancellation or to encourage the member to consider Amazon Prime's value to them and their family. *See also* my examples below of alleged "confirmshaming" on other websites, showing that this is a common practice. In each of these examples, the loss to the customer is emphasized and the decline option is visually de-emphasized.

107.   Dr. Chetty states (at ¶ 223):

> *Second, the Marketing page uses choice overload to lead users to abandon cancellation. There are two options to abandon the cancellation flow and stay enrolled and only one option to proceed to cancel. It is well known that users want to keep the status quo when presented with a change due to cognitive and behavioral biases. Users are resistant to change and if they are enrolled in Prime and likely to remain enrolled to preserve the status quo, so having two options to keep enrolled in Prime versus one to cancel also plays to this bias and means users are more likely to choose an option to stay enrolled in Prime.*

108.   However, customers who visit the cancellation page intending to cancel are unwedded to the status quo by definition. It is unclear that having two options to remain with Prime instead of one option to leave Prime would dissuade a customer who has actively navigated to the cancellation page from canceling Amazon Prime. Indeed, websites frequently offer multiple options throughout the cancellation process. This is because some consumers intentionally navigate to a cancellation page to see if there are better deals for their memberships, similar to how consumers might call their cable or internet provider periodically threatening to cancel to obtain a better deal.[26]

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[26] *See, e.g.,* Ludington, J. (2023), "Always Threaten to Cancel Your Subscriptions," *Medium*, https://medium.com/%40jakeludington/always-threaten-to-cancel-your-subscriptions-bd27423a5bef ("The bottom line here for you as a customer is that it's in your best interest to threaten to cancel. … [M]ore than likely you'll be offered a deal on virtually every subscription product you pay for."; "I clicked the cancel button on my [Evernote] account just to see what might happen. Turns out I'll get a 40% discount if I stay . . . that cancel button is definitely your friend."); Gordon, W. (2011), "When Have You Gotten Discounts for Threatening to Cancel?" https://lifehacker.com/when-have-you-gotten-discounts-for-threatening-to-cance-5863947 ("Threatening to cancel

Figure 44: *The New York Times Offers Multiple Options in Cancellation Flow*

109.   Similarly, her opinion in the following paragraph (¶ 224) that customers may be disinclined to click the "Continue to Cancel" button simply because of its position relative to other choices does not seem relevant to a customer who truly wants to leave Prime. The same holds for the opinion that the visual prominence of the "Keep My Benefits" button (¶ 227) would lead a motivated customer to not cancel their membership.

110.   Dr. Chetty again alleges confirmshaming:

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has always been a good way to get discounts on certain services, but it isn't the only way. [A] lot of services—like Audible, GameFly, and others—will grant you an *immediate* discount just for hitting the 'cancel' button under your online account settings.").

> *For instance, "Keep My Benefits," as opposed to "Keep My Membership," reminds the user that they may lose benefits by cancelling Prime. The "[Redacted], thank you for being a member with us. Take a look back at your journey with Prime" is also another attempt to convince the user to not cancel their Prime subscription, as it elicits feelings of regret. (¶ 228).*

111.   I disagree. In my opinion, Amazon's language is very mild, and Dr. Chetty offers no empirical evidence that it would dissuade a customer who actually wanted to leave Prime. It is common for a business to use language that emphasizes the benefits of a particular selection. Here are several examples of opt-out options (negative CTAs, or Calls to Action) using stronger language than Amazon:
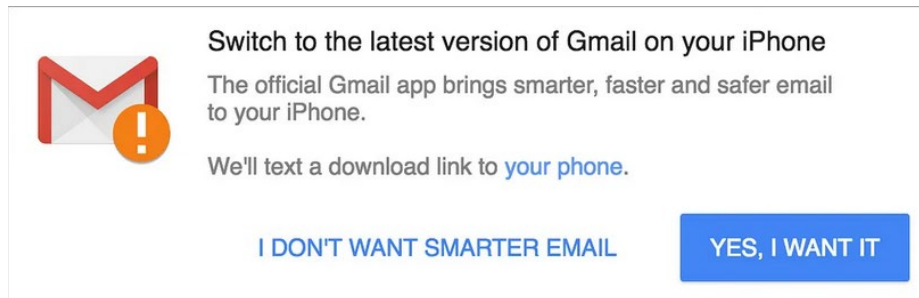
Figure 45: *Example 1 of a Strongly-Worded Negative CTA ("I Don't Want Smarter Email")*
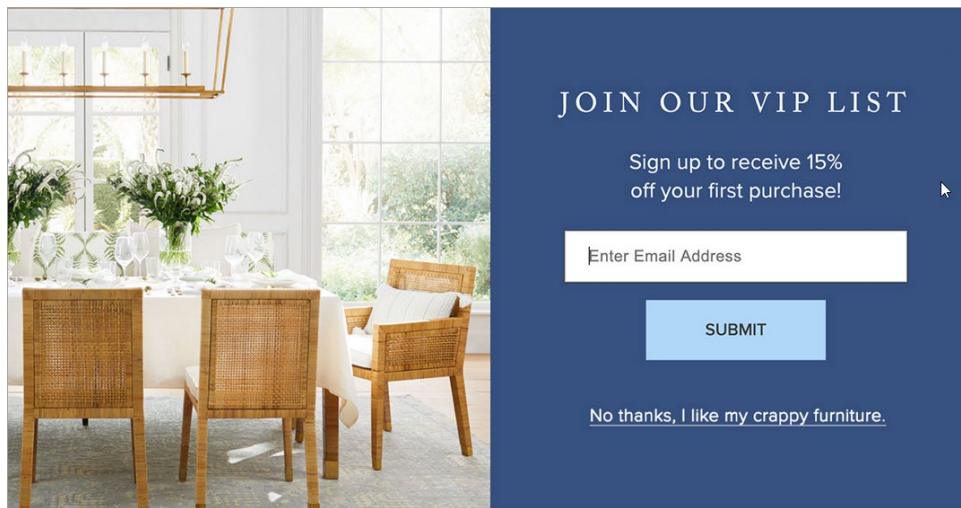
Figure 46: *Example 2 of a Strongly-Worded Negative CTA ("No thanks, I like my crappy furniture")*

63
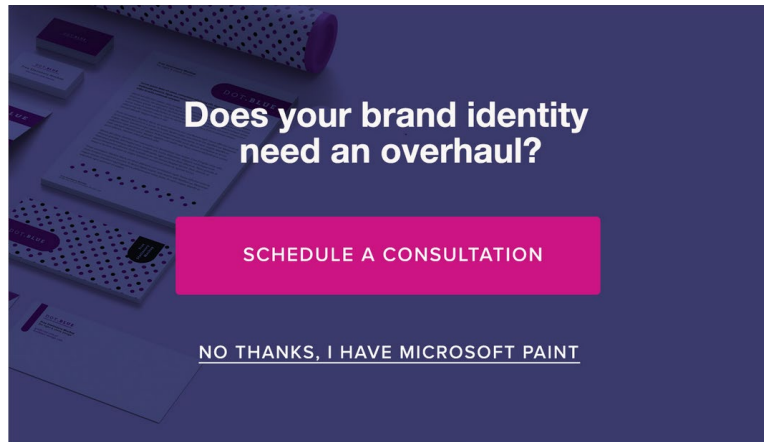
Figure 47: *Example 3 of a Strongly-Worded Negative CTA ("No thanks, I have Microsoft Paint")*
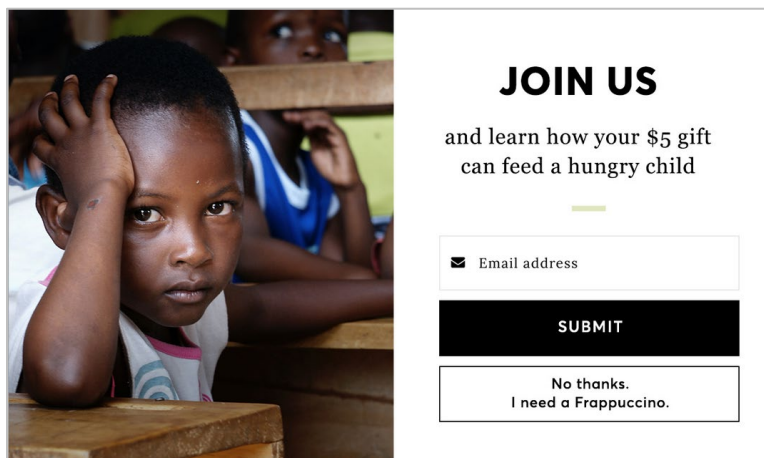
Figure 48: *Example 4 of a Strongly-Worded Negative CTA ("No thanks. I need a Frappucino")*

112.   Dr. Chetty alleges that, on the Iliad Marketing page, the customer may "*end up selecting an option that keeps them enrolled instead, such as 'Remind Me Later.*'" (¶ 225). However, the buttons are clearly labeled and described, so this is not an example of the "Bait and Switch" dark pattern, as she alleges. Additionally, if the customer did select "Remind Me Later," they would be reminded later to revisit their choice. The choice is not permanent.
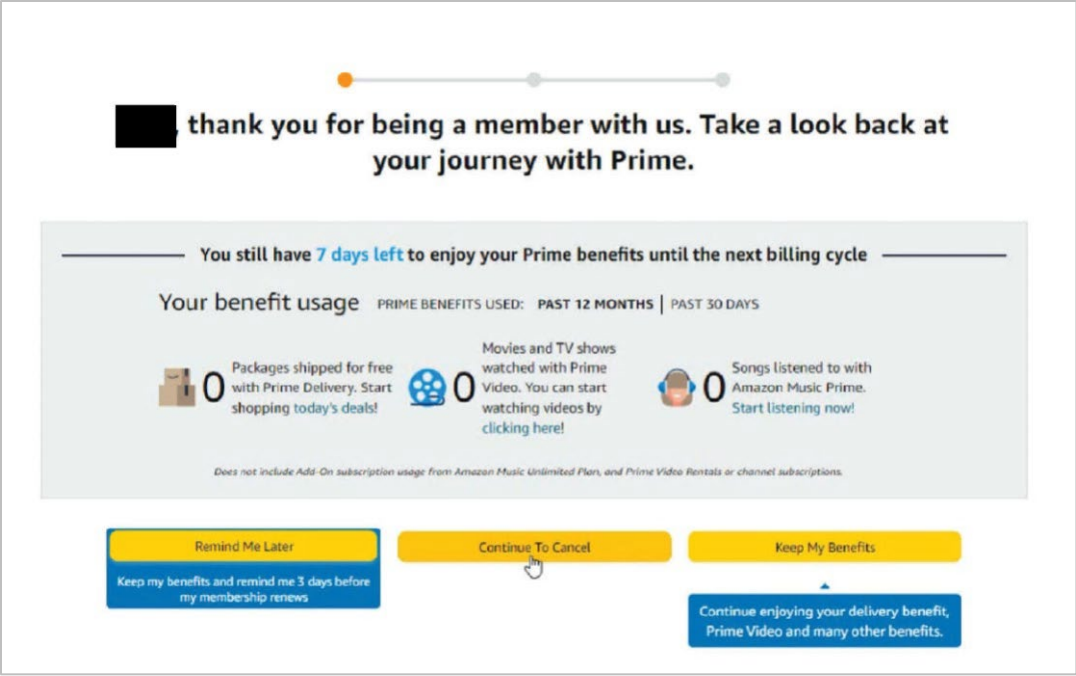
Figure 49: *Iliad Marketing Page*

Figure 50: *The New York Times Provides Similar Options , with Less Descriptive Information*

113.   Dr. Chetty also criticizes the "Remind Me Later" Button:

> *The additional information in the blue box surrounding the "Remind Me Later" button does not add any clarity beyond the timing of the reminder: "Keep my benefits and remind me 3 days before my membership renews"* (¶ 226).

114.   The 'Remind Me Later' button does provide useful information to the user in that it clarifies that, if the user selects this option, they will keep Prime, and they will be reminded later to revisit the decision.

115.   Dr. Chetty has several issues with the Amazon Offers page:

a. She states, "*Amazon emphasized the option to switch from monthly to annual payments by stating the amount a consumer would save at the top of this page in bold. Clicking the orange button ("Switch to annual payments") or the links beneath took the consumer out of the Iliad without cancelling.*" (¶ 230). But this is useful and relevant information because users on a monthly plan may decide not to cancel Prime if they can save more money by switching to a yearly plan. If they decide to be billed annually, then Amazon can safely assume that they no longer want to cancel Prime, so it makes sense to take them out of the cancellation flow. To leave them in the cancellation flow would be confusing and counter to the user's wishes.

b. Dr. Chetty states, "*Amazon also warns consumers that '[b]y cancelling, you will no longer be eligible for your unclaimed Prime exclusive offers.*" (¶ 231). But this is useful and relevant information that should be and is disclosed to customers who want to cancel.

c. Dr. Chetty also states, "*Choosing either 'Remind Me Later' or 'Keep My Membership' took the consumer out of the Iliad without cancelling.*" (¶ 232). Again, a customer requesting to be reminded later or requesting to keep their membership clearly does not want to cancel at the present time, so this design makes sense.

116. Christopher Brown, a former Amazon UX designer, testified that it was important to remind customers of the benefits of Prime at this point in the cancellation flow:[27]

> *Like we wouldn't continue to sell them on Prime speed delivery. We would not focus on that. We would try to focus on the other key benefits to Prime or call out ones that they've tried in the past and have not used in a while. Those are the sorts of things that we would make personal on the benefits page.*

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[27] Deposition of Christopher Brown, December 19, 2024, at p. 95:3-9.

117.   Christopher Brown also stated:[28]

> *[I]f we got signals that we thought that the pricing might be an issue, like we think -- we know this person is probably better for Prime Student and for some reason they're on Prime, so we lead with the pricing options for them rather than the benefits.*

118.   Such statements further reinforce the idea that Amazon was not implementing dark patterns but rather was looking to provide a customized value proposition that would make sense to the user. Brown also emphasized that he did not want to impede a customer who wanted to cancel:[29]

> *Q: Is it also fair to say that the purpose of Project Cafe cancellation flow from the perspective of a customer is to allow the customer to cancel their Prime membership?*
>
> *A: Yes. That was certainly my goal within the cancellation is to make sure customers could get through the flow and complete the task if they wanted to.*

119.   Dr. Chetty summarizes her evaluation of the Iliad flow as follows (at ¶ 254):

> *Therefore, to successfully cancel a Prime subscription, the consumer needed to find Iliad, find the right button to select on the Marketing Page, find the right button to select on the Offers Page, and find the right button to select in the Cancellation Page—while navigating dark patterns that could confuse them into not successfully cancelling.*

120.   There are only three buttons to press on three pages, and each button is present and obvious on each page. Given that Amazon is presenting the customer with the value proposition of Amazon Prime, so the user can make an informed decision regarding canceling, and Amazon wants to ensure that the user actually wants to cancel after considering the benefits,[30] the cancellation flow that Amazon designed seems very reasonable.

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[28] *Id.* at p. 97:6:11.

[29] Deposition of Christopher Brown, December 19, 2024, at p. 99:13-22.

[30] "Amazon Prime,.https://www.amazon.com/gp/help/customer/display.html?nodeId=G6LDPN7YJHYKH2J6.

121.   In his deposition, Reid Nelson (former UX designer at Amazon) agreed that "*the cancel flow is similar in length to other programs and offers customers a chance to switch plans or pause membership before canceling.*"[31]

4.3.2   Iliad 2.0 Cancellation on Desktop

122.   After April 2023, Amazon changed to the Iliad 2.0 cancellation process. Dr. Chetty notes (at ¶ 256):

> *The information presented in Iliad 2.0 is nearly identical to that in the Iliad. The key differences are:*
>
> *(i) the Offers Page is consolidated into a pop-up that Amazon displays if the consumer clicks on "Prime Plan Offers" on, and*
>
> *(ii) all of the options presented in the Iliad Cancellation Page (Remind Me Later, Keep my Membership, Pause on [date], End on [date], and End Now) are presented to the consumer in an interactive way.*

123.   Christopher Brown thought "*users liked the two-page cancel [i.e., Iliad 2.0] better.*"[32] Dr. Chetty provides this flowchart of the Iliad 2.0 process.

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[31] Deposition of Reid Nelson, February 27, 2025, at p. 234:24-235:1.

[32] Deposition of Christopher Brown, December 19, 2024, at p. 47:11.
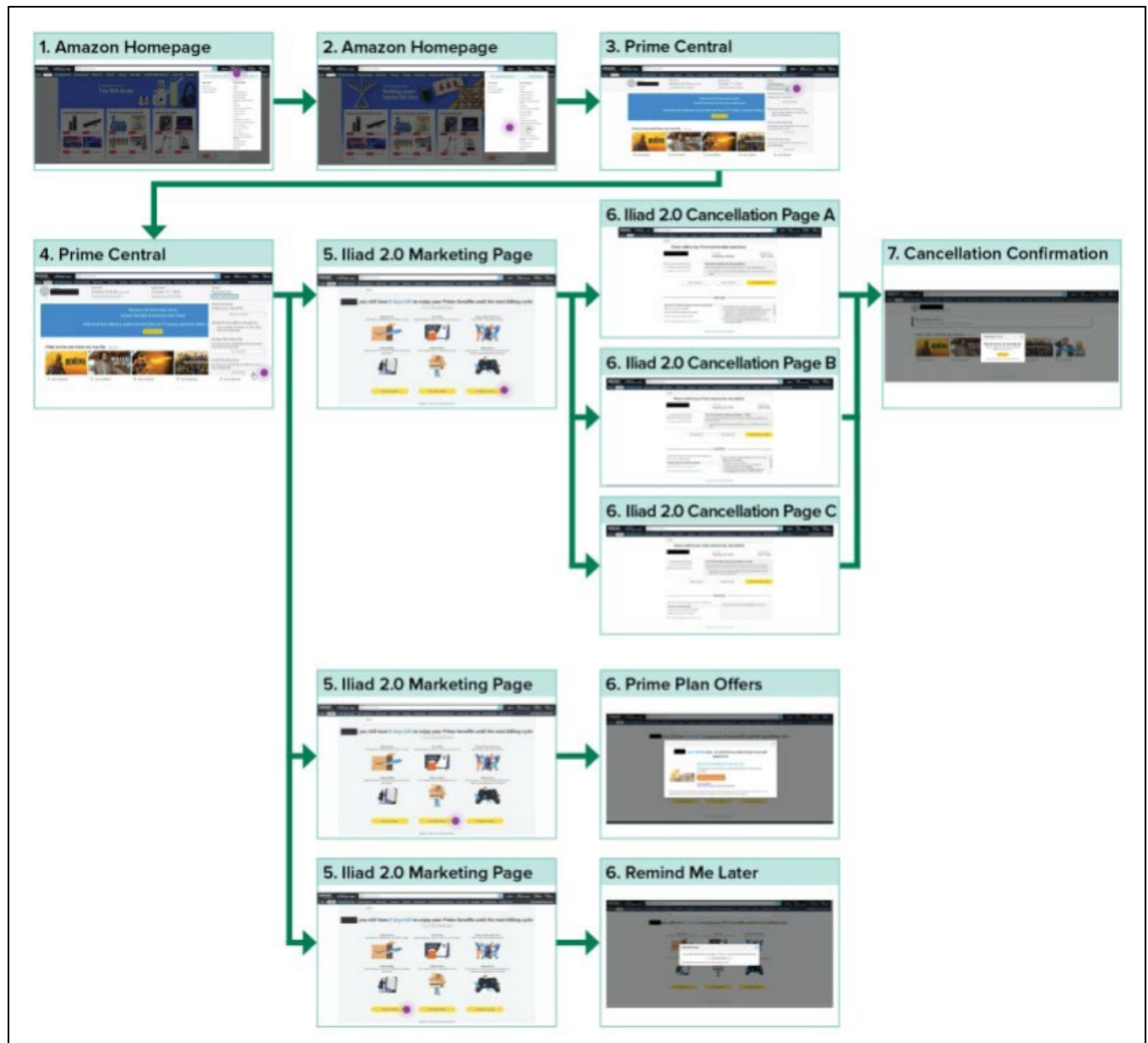
Figure 51: *Iliad 2.0 Cancellation Process (Figure 20 from Chetty Report)*

124.   Although Dr. Chetty concedes that "*Iliad 2.0 omits some of the dark patterns used in the Iliad*" (¶ 262), she still attempts to find issues. She states that "*[l]ike the Iliad's Marketing Page, the Iliad 2.0's Marketing Page contains information that is nearly exclusively focused on Prime benefits.*" (¶ 264).

70

125.   As described above, this is Amazon presenting the value proposition for Amazon Prime, which they have a right to do. Dr. Chetty also states that, even with the improvements in Iliad 2.0, "*a user may still be more likely to exit the cancellation flow than to continue to cancel*" (¶ 267). If the user chooses to exit the cancellation flow, it would be because the customer has changed their mind about canceling.

126.   Regarding the Cancellation page, shown below, Dr. Chetty claims,

> *Two of these [cancellation] options require one more billing cycle before cancellation is finalized.* (¶ 275).
>
> …..
>
> *[A] user must carefully read the text changes in the box about the Prime benefits since this also changes depending on which radio option is selected – if a user is not paying attention, they may confirm without reading carefully and not cancel their subscription even if they intended to cancel.* (¶ 277).

127.   These statements are not true; the customer will not be charged for an additional billing cycle for any of these three "Cancel" options on the left side of the below image, and clicking any of the three choices results in the customer not being charged for Prime going forward.

71

Figure 52: *Iliad 2.0 Cancellation Page (Figure 24 from Chetty Report)*

5.0 Think-Aloud Study of Enrollment and Cancellation Flows

128.   At the FTC's direction, Dr. Chetty created a mock website, CandyForever, that she designed purportedly intending to be similar to Amazon, in order to test how users react to Prime enrollment and cancellation flows. CandyForever offered a "Premium" membership that, according to Dr. Chetty, is similar to Prime because it provided members with free shipping. Dr. Chetty summarizes her think-aloud study as follows (at ¶ 304):

> *In our case, to study Prime enrollment and cancellation in a realistic setting, we decided to tell participants that 1) CandyForever was a real business, 2) it hired us to evaluate their site, 3) participants would receive the candy they purchased by mail, 4) they were enrolled in CandyForever Premium (regardless of whether or not they did so after going through the CandyForever online product checkout flow), 5) they would be billed if they did not cancel within the study session, and 6) they would keep unspent money left over on the giftcard we provided for purchasing candy. At the end of the study, we revealed that CandyForever was not a real business and provided debriefing documentation, which is a sheet explaining the real purpose of the study was to test interaction flows on a shopping website.*

129.   In the study, participants were given a gift card with $20 preloaded and directed to the CandyForever website. Dr. Chetty's team presented themselves as consultants working for CandyForever to test the site. Participants would purchase one item on the site and were told they could keep whatever balance remained on the card after the purchase. Participants were instructed to "think aloud" as they used the site: "*Try to talk aloud constantly the whole time. You don't have to plan out what you say or try to explain what you are saying. Just try to act as if you were alone, buying an item of candy, doing what you would be doing, but then just bring those thoughts out loud.*"[33]

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[33]"Study Guide" at p. 2.
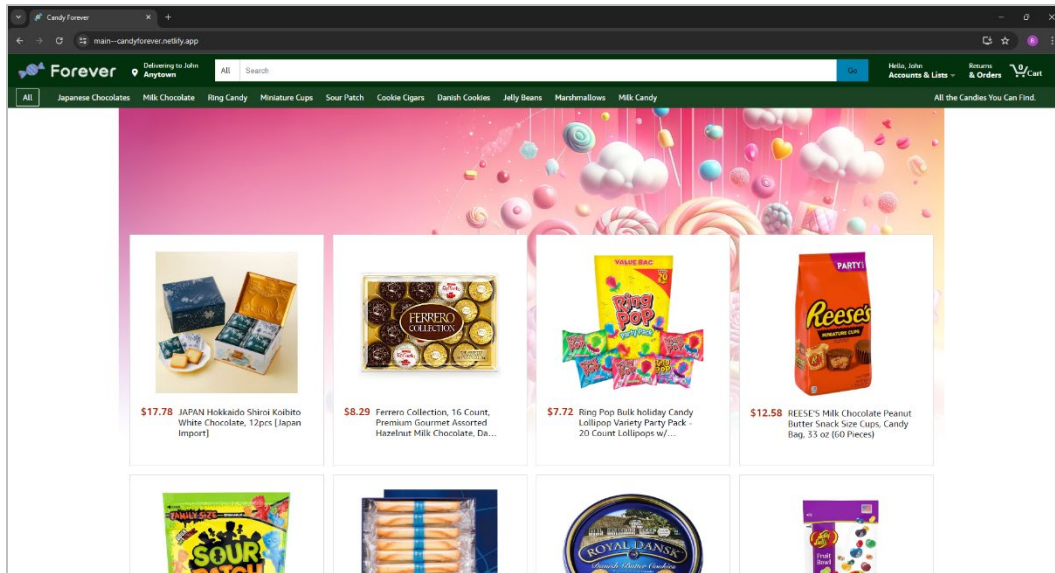
Figure 53: *CandyForever Inventory Page (3.CF-inventory-page-a.png)*
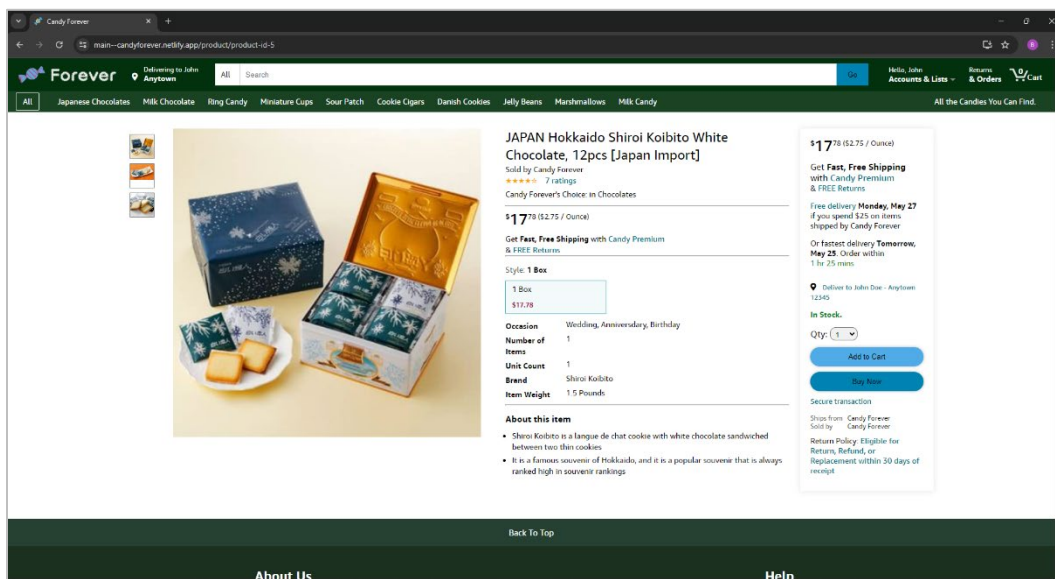
Figure 54: *CandyForever Product Page (6.example-product-page.png)*

130.   Participants first went through a purchasing flow, where they purchased their single piece of candy. They were then told that they were enrolled in CandyForever Premium (which is roughly

74

analogous to Amazon Prime, although customers were not told this), and that their second task would be to cancel Premium, as shown in the facilitator script:[34]

> ● *[Look at my own computer back end] Oh… um… It looks like you did enroll in premium.*
>
> ● *Wait hm, it looks like you did enroll in candy forever premium, is that something you meant to do? [some improvisation may be necessary]*
>
> ● *Well it's good information to know, is that a subscription you would want to keep?*
>
> ● *[If they are certain that they did not sign up] Well it's possible that the site has a bug where it enrolls people automatically on accident.*
>
> ● *[Look concerned and silent for a moment]*
>
> ● *Would you like to cancel your CF Premium subscription?*
>
> ● *So, the problem is: we don't have privileged access to the user database to change your subscription status, and we know at least the billing in the site is live [plus you just purchased something]. This is the only version of the site they gave us, and you won't be able to access this site from home since it is not set for live deployment yet.*
>
> ● *So I am worried that, starting in a month, you might get a bill in the mail at your address and won't be able to cancel it at home without access to the site.*
>
> ● *Can you just try to cancel your Premium subscription on this version of the site right now? They didn't provide us instructions to do so.*

131.   After the study, participants were debriefed regarding the true nature of the study:[35]

> *In this study, we told you that you were testing an online candy store and were enrolled in its premium subscription. However, in reality, the website and its subscription are fictional. CandyForever does not exist, and they do not have your contact information or mailing address. You won't get a bill in the mail. You won't get delivered whatever items that you purchased. You will not receive the unspent amount left on the card as we said. Instead you will receive the greater value of $15. This will be added on top of the base compensation that was advertised.*

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[34] "Study Guide" at p. 4.

[35] "Study Guide" at p. 5.

In lieu of what you ordered, we do have some candy that you can take.
So please feel free to take some candy.

5.1   Methodological Flaws

132.   Dr. Chetty's think-aloud study exhibited numerous methodological flaws:

a.   The study used an **artificial environment** that did not recreate real-world consumer behavior. Chetty says that the point of small qualitative studies is to produce "*in-depth insights and anecdotes of users' lived experiences.*" (¶ 75). However, this "study" that she designed is not based on users' real-life experiences. The participants clearly knew the exercise was fake. The participants repeatedly said they were only selecting options "*for fun*" and were making choices because it wasn't "*real money.*" (*See* ¶ 353(iii) and (iv)).

b.   The study features a **limited sample size and between-subjects design** and lacks the statistical power to generalize findings. Dr. Chetty's own report concedes that small qualitative studies do not have statistical significance: "*Qualitative studies, including cognitive walkthroughs and think aloud studies, are generally not meant to generate large quantitative effects or significant statistical measures because they are typically conducted on smaller sample sizes.*" (¶ 75). Despite being aware of the limited explanatory power of small sample sizes in qualitative studies, Dr. Chetty nevertheless designed the usability study with a total number of only 30 participants, which she then *further* divided into three experimental conditions, with only 10 people per experimental condition. (*See* ¶ 293.) A study with only 10 subjects per condition does not have the statistical power to generalize to the actual population of Amazon Prime members. In addition, according to Amazon's own former UX Researcher, small sample sizes introduce the risk of bias[36] and are not

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[36] Deposition of Reid Nelson, February 27, 2025, at p. 80:11-14.

well suited for determining the "*extent to which something is perceived as clearer and easily comprehended*."[37]

    c. The study **lacks any benchmarking** against competitors and thus does not present a comparison with industry norms.

    d. The coding of study participant behavior **relied heavily on subjective interpretations** rather than objective, predefined criteria.

133.   Nevertheless, even if we assumed that Dr. Chetty's flawed CandyForever study could be used to draw real-world conclusions on Prime (as explained, it is not sufficiently valid or reliable to do so), Dr. Chetty found that only *two of the 30* participants "accidentally enrolled" in Premium. This finding does not support her conclusion (at ¶ 361(i)) that "[t]he design of how Amazon enrolls consumers in Prime (the Prime detours) during online checkout can confuse consumers to unintentionally enroll in Prime because it violates good design principles."

5.2   Examples of Methodological Flaws

5.2.1   Artificial Shopping Experience

134.   Dr. Chetty claims to have made efforts to make CandyForever similar to Amazon (at ¶ 292):

> *We designed the CandyForever website to match the aesthetics of the Amazon website (including its online checkout and cancellation processes) as closely as possible. We used the same visual styles as seen on the Amazon website and screen captures of the Amazon checkout and cancellation processes that the FTC provided us. The main differences between the CandyForever website and the Amazon website were the color scheme, the sale inventory, the slogans, and logos, which depict a fictional candy store selling a variety of international and domestic candies. We included those differences to avoid confusing consumers who would have recognized the Amazon website.*

135.   Despite the differences that Dr. Chetty described above, many study participants recognized the site as being very similar to Amazon, and in fact, noted that the similarity to

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[37] *Id.* at p. 83:20.

Amazon meant the website would be easy to navigate. Here are just a few of the comments by some of the subjects.

    a. Participant 23: *"Awesome. So, like, right off the bat, it reminds me of an Amazon Marketplace. Like being on an Amazon site. It kind of feels like it is Amazon just for specific to candy. (…) So as to click into an item. Oh, it does really look like Amazon a lot. That's pretty cool. And I like that there's a free delivery and free spend, which again, gives me that Amazon vibes."*[38]

    b. Participant 4: "*So upon initial like looking at it from just opening it, it looks like Amazon. Like immediately off the bat. Like with my account over here. The entire top just looks like. My Amazon cart, so it shouldn't be too hard to navigate.*"[39]

    c. Participant 9: "*Actually, it looks pretty simple. I mean, I order off and it actually looks like the screen on Amazon, so it's pretty easy to navigate.*"[40]

    d. Participant 17: "*No, it's it's pretty, simple. It's actually simple. It reminds me, seriously, of Amazon. It's like this is an Amazon. Shell because it's exactly how Amazon would do it in terms of the shipping that I saw. Adding the credit card was the same. Shopping was different because I only had those different items, but I could, you know, when I hit on the columns at the top, I was hoping to see, like, multiple options. But you did say they only did one. But when I'm looking at this, it looks exactly like my Amazon account. Especially accounts in list. Returns and orders to cart all of that.*"[41]

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[38] Participant 23 Transcript at p. 3.

[39] Participant 4 Transcript at p. 3.

[40] Participant 9 Transcript at p. 6.

[41] Participant 17 Transcript at p. 5.

e. Participant 8: "*Suspiciously similar to Amazon Prime. (...) This could be. Some sort of veiled psychological experiment for Amazon posing as Candy Forever.*"[42]

136.   Participant 12 specifically noted that both the checkout flow and the cancellation flow were easy to navigate because they were like Amazon's layout:

> *"It's a nice purchasing flow. . . . I like the layout because to the eye it's, almost like a Amazon layout, which is, you know, people pretty much are using. So that's a pretty easy, layout. Everything is pretty descriptive from what I saw."[43]*

> *"Closing out the membership isn't hard, so they don't have to change. I, like I say, this is a really good template to even use because it's pretty much a natural Amazon feel or look, which gives them a head up on any competition."[44]*

137.   Despite some similarities between the CandyForever website and the Amazon website, a study that tests how customers view, interpret, and use a fake website for a fictional brand that sells a single product is not generalizable to how real consumers interact with Amazon (a well-known brand with a broad consumer base). For example, several participants noted their lack of interest in Premium, specifically because they did not want to buy candy in bulk, indicating how the study's arbitrary fictional premise skewed the results. Participants commented: "*I don't want no subscription or no candy,*"[45] "*No, I don't really eat candy,*"[46] "*I don't need to buy any bulk, so, so I would definitely cancel it [Premium],*"[47] and "*But I guess I'm not a hardcore candy connoisseur, so maybe I'm not understanding the benefits of that.*"[48]

138.   In addition, the fact that 40% of Dr. Chetty's subject participants (12 out of 30) enrolled in CandyForever Premium to ostensibly get free shipping on their candy orders as long as they were

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[42] Participant 8 Transcript at p. 4.

[43] Participant 12 Transcript at p. 7.

[44] Participant 12 Transcript at p. 12.

[45] Participant 7 Transcript at p. 15.

[46] Participant 26 Transcript at p. 1.

[47] Participant 28 Transcript at p. 14.

[48] Participant 31 Transcript at p. 13.

paying $12.99 a month or $139.00 per year calls into question the realism of the study. All of the subjects knew that they were participating in an experiment, and their likely motivation when participating in the study was to (1) collect their participation fee of either $125 or $150 (depending on the time of day), and (2) keep whatever balance was left on the debit card that was given to them that had a $20 initial balance or whatever remained as balance on their debit card. Given that the monthly cost of CandyForever Premium was $12.99, participants would likely not be inclined to sign up for an ongoing CandyForever delivery subscription, as forgoing this would allow them to keep that $12.99 on their debit card for use in purchasing candy, or more likely, keeping that money at the end of the study.

139.   Another issue that significantly raises questions about the realism and applicability of the study is that the subjects were not using their own credit or debit card, so any charges to the card would not be paid by them personally. Because of this, Dr. Chetty saw behaviors that would not be found in actual consumer interactions. For example, Dr. Chetty states on paragraph 353 of her opening report that,

> *P8, asked about enrolling in Premium for fun as part of the study: "So for the purposes of the simulation. Should I select this or do you care?" When instructed that they could do what was in line with their preferences, they enrolled saying that since they were not using their own credit card it would be safe to enroll: "I'm assuming that it is billing this card, which is now empty, is going to have no negative consequences. So I'll just go with that.*

This shows that the participant enrolled in CandyForever Premium knowing that they were not paying for it, and it was a benefit that reduced the shipping costs on their order without any financial consequences to them.

140.   Further, in Dr. Chetty's think-aloud study, participants were highly incentivized to cancel Premium. As per her study methodology, all of the subjects who did not sign up for CandyForever Premium on their own were told that they had been signed up for that service (that they did not want) because of a bug in the system. This would create a very strong motivation for a subject to cancel the CandyForever Premium service and would likely create negative feelings towards the company.

80

141.   By contrast, Amazon customers actually signed up for Prime and were not subscribed to Prime because of "*a bug where it enrolls people automatically on accident,*" as it says on page 4 of her "Study Guide." Amazon Prime customers who actually initiate the cancellation process may be on the fence and open to changing their minds about the benefits of Amazon Prime,[49] discounts, or alternative ways to pay for the Amazon Prime service. Amazon's own former UX Researcher observed in his deposition that if a user can too quickly dismiss an offer, "*it might result in some users rapidly dismissing the offer who might have been interested in what the offer entailed but did not spend the time reading closely compared to users who had to hunt and peck for the option to get out of that flow and then through that process potentially discovering that they were interested in the offer.*"[50] Dr. Chetty's study design does not account for such customers.

142.   Some participants noted the artificial nature of CandyForever as their source of confusion:

> *And I think this I think this is just because it's a beta, right. Like I think it's just because it's testing. It's kind of weird, like. Am I signing up for a premium 30 days? Is the site really live? Am I really signing up for something or is this. Again, we're just walking through it and I'm not really signing up. I think if I were making a real purchase this were an already live site, then it's a little less confusing.*[51]

143.   Due to these differences, any findings regarding subject participant behavior on CandyForever cannot necessarily be applied to customers on Amazon. Real-world customers see value in Prime that study participants did not see in Premium. A decision by a subject participant to cancel CandyForever Premium in the study is not analogous to a decision made by an actual Amazon customer to cancel Prime, as that decision to cancel Premium was forced on the majority of study participants by the design of the study. In other words, 18 out of 30 subjects who did not sign up for CandyForever Premium were told that they were mistakenly enrolled in Premium due to a bug in the CandyForever website.

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[49] Amazon Prime, https://www.amazon.com/gp/help/customer/display.html?nodeId=G6LDPN7YJHYKH2J6.

[50] Deposition of Reid Nelson, February 27, 2025, at p. 125:22-126:3.

[51] Participant 4 Transcript at p. 6.

144.   Dr. Chetty's results tend to bear out the fact that study participants did not view Premium in the same manner as Amazon customers view Prime. Many Amazon customers in the US are Prime members.[52] By contrast, Dr. Chetty reports that "*Over one-third of participants (12/30) enrolled in Premium.*" (¶ 351(i)). This indicates that study participants may have placed less value on CandyForever Premium than actual Amazon customers do on Prime, and this may have affected how they responded to messaging regarding CandyForever Premium. As an example, one participant said, "*So I think with offering the premium. (...) Subscription is odd in the placement of, I think, just this being a beta test. I think that's odd for me.*"[53] They may have been more inclined to ignore Premium due to lack of interest, which likely affected the study's findings.

145.   Also, the study found:

> *Only two of the 12/30 participants who enrolled in Premium did so being fully informed and intentional about their choice.* (¶ 353(ii)).

146.   It seems highly unlikely, given that millions of people in the United States are Amazon Prime members,[54] that only 17% of Prime enrollees (equivalent to 2 of 12 in the study) do so "*being fully informed and intentional about their choice.*" This finding calls into question the study's fidelity and the findings' applicability to actual Amazon customers. Similarly, these findings seem to demonstrate a higher level of customer confusion than would be expected among actual Amazon customers.[55]

147.   Dr. Chetty states the following:

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[52] Mosby, A. (2025), "Amazon Prime Statistics (Subscribers & Revenue)," *Yaguara.co*, https://www.yaguara.co/amazon-prime-statistics/.

[53] Participant 4 Transcript at p. 5.

[54] Mosby, A. (2025), "Amazon Prime Statistics (Subscribers & Revenue)," *Yaguara.co*, https://www.yaguara.co/amazon-prime-statistics/.

[55] *See, e.g.,* Chetty Report at ¶ 354(i) ("*After completing the first task and going through a reflection of their actions, only 9/30 participants correctly recalled all of the information about the cost, frequency of charges, and nature of Premium as a subscription.*"); ¶ 354(ii) ("*18/30 participants had difficulty recalling the cost of Premium even after reflecting on the first task flow and seeing the screens for a second time.*"); ¶ 354(iv) ("*9/30 participants had a lack of an understanding of what Premium was more generally.*").

"*Most participants did not read the Premium fine print with terms and
conditions during the enrollment process when purchasing a product.*"
(¶ 353(i)).

Dr. Chetty attributes this to dark patterns preventing participants from understanding the
terms. An alternative and perhaps more reasonable interpretation is that study participants did not
read the terms and conditions either because they knew the exercise was fake and the stakes were
low to non-existent for them and/or they had no interest in Premium. According to the data she
provides,[56] of the 19 people who did not sign up for Premium, 18 did not read the terms and
conditions.

148.   Similarly, Dr. Chetty notes:

> *After completing the first task and going through a reflection of their
> actions, only 9/30 participants correctly recalled all of the information
> about the cost, frequency of charges, and nature of premium as a
> subscription.* (¶ 354(i)).

> *18/30 participants had difficulty recalling the cost of Premium even
> after reflecting on the first task flow and seeing the screens for a second
> time.* (¶ 354(ii)).

149.   But participants may have paid less attention to the details of Premium because they knew
they were not spending their own money or because they lacked interest in the Premium
subscription. Moreover, asking participants *after the task concluded* whether they could recall the
terms and conditions of the Premium subscription is a test of participants' memorization skills, not
the clarity of the interface design. Dr. Chetty should instead have asked participants whether they
understood Premium's terms and conditions at the point in the checkout flow in which they would
have decided to enroll in or decline the membership. Also, I have already addressed how Amazon
presents terms and conditions in an industry-standard manner, and it is meaningless to report
anything about the terms and conditions if the user had no intention of signing up for Premium
(¶ 354(ii)).

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[56] Chetty spreadsheet titled participant_coding_analysis.xlsx.

5.2.2 Sample Size and Study Design

150.   Another major flaw in Dr. Chetty's think-aloud study was the small sample size. The study used 30 participants and purportedly is trying to extrapolate its findings to the behavior of tens of millions of Prime customers[57] based on the data from only 30 people. In addition, because Dr. Chetty utilized a between-subjects design, with three experimental conditions, there were only 10 subjects per experimental condition. I will talk more about this below.

151.   Dr. Chetty herself notes (¶ 75):

> *Qualitative studies, including cognitive walkthroughs and think aloud studies, are generally not meant to generate large quantitative effects or significant statistical measures because they are typically conducted on smaller sample sizes.*

152.   One cannot extrapolate results to large populations from very small sample sizes. According to former Amazon UX researcher Miles Hunter in his deposition:[58]

> *[I]f I watch ten people do something and one of them has serious difficulty, that doesn't mean that ten percent of people have serious difficulty, but it means that some will have serious difficulty.*

153.   To extend the analogy to this study, if one person has an issue in the study and there are 10 people that are tested per experimental condition, that is 10% of the study population. If 10% of the study population has a specific issue with a user interface, that does not mean that millions of Prime customers, equaling 10% of the Amazon Prime user base, will have the same issue. Regarding Hunter's perspective that "*some will have a serious difficulty,*" it is important to understand that Amazon must design and optimize its site for its entire customer base. Amazon is designing and creating a single site that must serve the needs of all their customers, rather than designing and creating a site that is just for "some" of their customers. Given the extremely large number of Amazon users, some of them are bound to experience difficulties.

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[57] Mosby, A. (2025), "Amazon Prime Statistics (Subscribers & Revenue)," *Yaguara.co*, https://www.yaguara.co/amazon-prime-statistics/.

[58] Deposition of Miles Hunter, September 18, 2024 at p. 26:3-6.

154.   As previewed above, Dr. Chetty's think-aloud study also used a between-subjects design, where a different set of participants are each assigned to a different condition or group:

> *Because we had three versions of the UPDP page and the SOSP page, the research assistant selected which version of the enrollment flow to test for each participant using the hidden settings page.* (¶ 299).

155.   Using a between-subjects design has several significant drawbacks:

a. **Requires More Participants:** Since each participant is only exposed to one condition, you need a much larger sample size to achieve the same statistical power as a study that uses a within-subjects design and detects meaningful differences between groups. Because there were three different UPDP page versions and three different SOSP versions, each version was viewed by only 10 study participants (*see* ¶ 346, Table 3.) The think-aloud study only tested 10 subjects per any given experimental condition. This alone makes it insufficient to extrapolate the results to the population of all Amazon Prime users.

b. **Less Statistical Power:** Compared to within-subjects designs, between-subjects designs have less statistical power because the entire population of subjects is divided into multiple experimental conditions. In this case, the pool of 30 subjects was divided into three groups of 10, with each group only experiencing one experimental condition. This can make it much harder to detect a real effect unless the sample size is much larger.

c. **Group Equivalence Issues:** Ensuring that the groups are equivalent at the start of the experiment can be difficult. Even with random assignment, there is a chance that one group may have characteristics that make them systematically different from the other. There is no discussion that the participants were assigned to the enrollment randomly; the assignment appears to have been made in an alternating and cyclical way by the research assistant, which calls into question the methodology of the study. (*See* ¶ 299.)

d. **Risk of Confounds in Non-Randomized Designs:** If groups are not truly randomized, then the design risks introducing biases that make it difficult to establish causality.

e. **Individual Differences (Participant Variability):** Individual variability among participants can introduce variability that affects the results. Because each participant is exposed to only one UI condition, individual differences can increase variance, making it harder to detect the effects of differences between user interface versions. Some key individual differences to consider include:

    i. **Demographic Factors:** Such as age (older users may have different cognitive and motor abilities compared to younger users); gender and cultural background (may affect preferences, familiarity, and usability perceptions).

    ii. **Cognitive Abilities**: Including working memory capacity (affects how well users retain and process interface elements); spatial ability (influences navigation skills in complex interfaces); attention span (users with shorter attention spans may struggle with lengthy or complex interactions); response time (users with faster cognitive processing can complete tasks more quickly, whereas slower processors may struggle with complex interfaces); decision-making (slower processors may take longer to analyze options, impacting reaction times in navigation or problem-solving tasks); error rates (users with lower processing speed might make more errors, especially in time-sensitive tasks or when dealing with overwhelming information); and learning curve (users with slower processing may require more time to adapt to a new UI compared to those with faster cognitive speed).

    iii. **Technical Experience**: Such as familiarity with technology (prior exposure to similar interfaces or experiences, e.g., touchscreen vs. keyboard-based; online shopping) can influence ease of use; computer

86

literacy (users with lower digital literacy may take longer to complete tasks).

iv. **Personality Traits:** Including openness to experience (users high in this trait may explore new interfaces more readily); impulsivity versus caution and risk aversion (some users may make rapid decisions without reading instructions).

v. **Motor and Sensory Abilities:** hand-eye coordination (impacts precision in clicking, dragging, or touchscreen interactions); visual and hearing impairments (users with impairments may require accessibility features).

156.   Another potential issue was the presence of the research assistant during the study, who interacted with the participants, introducing the possibility of unconscious bias by the research assistant influencing the results.

5.2.3   Lack of Benchmarking

157.   Dr. Chetty tested three versions of the UPDP, based on screenshots provided by the FTC. These versions were used by Amazon at different times. Dr. Chetty states:

> *The first UPDP version we tested was from Attachment D. The second version of UPDP we tested was based on Attachment H, and the third version of UPDP was based on Attachment I.* (¶ 297).

These versions are shown below.

Figure 55: *UPDP from Attachment D*

Figure 56: *UPDP from Attachment H*

Figure 57: *UPDP from Attachment I*

158.   Because she combined all three versions, she cannot draw conclusions regarding any single design element. Further, because Dr. Chetty did not use a control group in the study, she has no baseline against which she can compare her results.

5.2.4 Subjective Coding of Results

159.   Study data consisted of manually coded observations of participant behavior, as Dr. Chetty explains (at ¶ 339-340):

> *[M]y research assistant and I transcribed all the video files using MaxQDA's automated transcription tools. I note here that the transcription quality was of high enough standard for analysis and in places where the automated transcription missed words or incorrectly transcribed words, we primarily relied on the video audio to ensure that we were analyzing what each participant said accurately. My research assistant and I then discussed and developed a code book, which is a set of labels for events of interest in the videos and transcripts and points at which participants had misconceptions about what was occurring in the interface.*
>
> *For each code, we watched the participant video, noting movements of the participant's onscreen cursor and what they said (from the audio recording and transcript). We looked for pauses in interactions and speaking and for what participants said to ensure we had sufficient information to apply our coding scheme. We then applied the code where relevant.*

160.   There are a variety of problems with this methodology:

a. **Subjectivity in Coding Decisions**: The coding process relies heavily on subjective interpretations rather than objective, predefined criteria. The definitions of key codes (e.g., "Informed Enrollment" vs. "Uninformed Enrollment") are vague and require subjective judgment. The assignment of certain codes, such as whether a participant "Knew Premium Cost" or "Read UPDP fine print," depends on personal judgments that can introduce bias.

b. **Lack of Intercoder Reliability Measures:** There is no mention of measuring intercoder reliability to assess whether the coding was consistent between Dr. Chetty and the research assistant. Without testing for agreement, the reliability of the data is questionable.

c. **Potential Confirmation Bias:** Dr. Chetty and the research assistant developed a custom codebook after reviewing the data, which can introduce confirmation bias. There is no indication that an independent set of researchers verified or challenged the coding scheme. Dr. Chetty and the research assistant's role in defining and applying the codes may influence results to align with their expectations.

d. **Ambiguous Use of Heuristics for Coding Behavior:** The decision to classify someone as having read the fine print based on cursor movement or navigation speed is highly speculative and lacks empirical justification. Participants often read without pointing to where they are reading. Also, because participants may read something without reading it out loud, one cannot assume that reading something out loud (or tracing a pointer across the words) is the only indication that the passage has been read. Many people read passages without reading them out loud or tracing a pointer across the words.

e. **Lack of Data Validation for Transcription Accuracy:** The transcription was automated and only *"spot-checked"* for errors, meaning many transcription errors may have gone unnoticed. There was no independent verification that the

90

transcription accurately captured participants' statements, affecting the validity of qualitative data coding from the transcription (¶ 339). See below for examples of transcription errors I found in comparing the transcript to the video. It appears that Dr. Chetty did not make that comparison. She also notes, "*in places where the automated transcription missed words or incorrectly transcribed words, we primarily relied on the video audio to ensure that we were analyzing what each participant said accurately.*" (¶ 399). However, it is not clear that an error such as an un-transcribed word or group of words would be evident from just reading the transcript, so she would not always know when to refer to the video. Thus, it appears that Dr. Chetty did not take all necessary steps to ensure the accuracy of the data. Given the questionable accuracy of the transcription, Dr. Chetty should have done the coding directly from the videos, instead of from the transcriptions of the videos.

f. **Overgeneralization in Applying Codes:** The coding process reduces complex participant behaviors into binary categories, failing to account for nuance. This is fine for categories that are truly binary (e.g., "Whether Enrolled in Premium"), but very problematic for categories such as "Whether Read UPDP Fineprint," as it does not take into account if they fully read and understood the fine print. Reading behavior and cognitive understanding of what is read exists on a continuum. We can intensely study text (even re-reading it), read it through once, skim the entire passage, skim the first few lines, ignore it entirely, understand it fully, partially understand the passage but have questions, etc. The study does not account for these different behaviors, and it is unlikely that the researchers could even determine which behavior occurred based on observation of mouse movements or if the subject chose to read the words out loud or not. In addition, the "Accidental Enrollment" classification is stated as a lower bound, suggesting subjectivity in determining what qualifies as an accident.

g. **Arbitrary Categorization of "Informed" vs. "Uninformed" Enrollment:** Similarly, the methodology creates artificial categories based on inferred

91

knowledge rather than explicit participant statements. Why are knowing the cost, charge timeline, and benefits the only factors determining whether an enrollment is "informed"? In addition, what is important is that they knew the relevant financial details associated with Prime membership when they chose to enroll in Prime, not if they had memorized the relevant financial details associated with a Prime membership after the experiment was completed.

h. **No Mention of Blinding or Efforts to Reduce Bias:** The coding was conducted by individuals aware of the study's hypotheses, which increases the likelihood of observer bias. There is no mention of blinding or randomization to reduce subjective influences.

i. **Absence of Quantitative Validation:** While the coding process leads to statistical analysis, there is no mention of testing for coding reliability, error rates, or alternative interpretations of the data. There is no cross-validation with other researchers or methods (e.g., participant follow-ups, surveys) to confirm that the coded data reflect actual participant intent.

j. **Potential for Demand Characteristics and Observer Effects:** Since a research assistant was present and involved in coding the data, participants' behaviors might have been influenced by the study setting. Participants may have acted differently due to being observed, affecting how they engaged with the Premium enrollment or cancellation process.

161.   As mentioned above, I found many errors in the transcriptions. Dr. Chetty used the speech-to-text software MaxQDA to generate a text transcription from the videos.[59] I believe the quality of this speech-to-text software was low, which could have also affected her results. Dr. Chetty then used this automated transcription to code the answers to her study. She logged the answers in an Excel spreadsheet called "participant_coding_analysis.xlsx."

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[59] Chetty Report at ¶ 339.

162.   A brief spot check of the beginning of four of the transcripts revealed the following examples:

    a.   Participant 1 at line 3: The research assistant's questions and the subject's responses are not separated, for example (subject's responses are underlined):

> *S1: And so and since we actually set it up with your information provided, you can expect some actual candy. <u>Cool.</u> Everything makes sense so far. <u>Yeah</u>. Cool. Okay, so before we set you off, one final and important instruction. So in this observation, we are interested in what you think about as you use the website. Maybe you've done this type of testing before. Have you done this type of testing before. <u>No, no.</u> Okay. So yeah. So so is this common in order to do this, we're asking you to think aloud, kind of as you say.*

    b.   Participant 2 at line 1: Same issue, for the entire transcript, for example:

> *S1: And can I just. Can you say something? I'll make sure that the mic is picking you up. <u>Hello? Hello? Hello.</u> Yeah. Looks good. Great. Okay. So these are just a few warm up questions. How would you describe your level of experience with online shopping in general? <u>Pretty I feel like I don't want to say a pro, but I've been doing it my entire life. It's like where I do most of my shopping. I prefer than going to, like, the mall or stuff.</u> Sure, sure. So, like, your comfort level with shopping is online pretty high? <u>Pretty high.</u> Have you ever shopped for for candy? <u>No. Never shop for candy online.</u> Do you have any experience shopping for, like, other similar products? Like maybe food products? <u>Food? Yeah, I do groceries. When I was in college, I would order my groceries through like Costco and have them delivered.</u> Okay. Okay.*

    c.   Participant 4 at line 9: The transcript says, "*So the idea of Kennedy forever…*" instead of CandyForever.

    d.   Participant 4 at line 12: Subject's affirmative response is not included in the transcript.

    e.   Participant 5 at line 5: The transcript says, "*S1: What about what would you say about like kind of your comfort level? Article on shopping. Online shopping.*" Yet research assistant does not say "*Article on shopping.*"

f. Participant 5 at line 11: Again, the transcript says, "*So the idea of Kennedy forever…*" instead of CandyForever.

g. Participant 5 at line 11: Again, the research assistant's questions and the subject's responses are not separated:

> *S1: So the idea of Kennedy forever is that you can purchase candy from dozens of countries around the world, and then almost any price point. Does that sound like a service that would interest you? <u>Yeah</u>. (..) So now…*

163.   Dr. Chetty attempted to categorize participants' knowledge of their enrollment in CandyForever Premium and their interactions during the cancellation process into discrete categories. I am concerned with the accuracy, reliability, and consistency of Dr. Chetty's coding—especially the categories labeled "Uninformed Enrollment," "Did Not Understand Nature of Premium," and other related categories—as they do not always align with the detailed observations recorded during the study sessions.

164.   Concerning Dr. Chetty's coding of "Whether informed Enrollment," Dr. Chetty states the following (at ¶ 344):

> *If a participant had the code "Enrolled" and not any of ("Did Not Know Cost of Premium", "Did Not Know Charge Timeline of Premium", or "Did Not Understand Benefits of Premium"), we applied a code "Informed Enrollment". All other participants who were "Enrolled" were considered "Uninformed Enrollment".*

165.   First, it should be noted that it is unclear how Dr. Chetty coded the columns "Did Not Understand Nature of Premium" and "Understood Nature of Premium," as this was unclear from her report. As Dr. Chetty said in paragraph 344 of her report, the coding of "Informed Enrollment" versus "Uninformed Enrollment" was dependent on "Did Not Understand Benefits of Premium." Still, it is unclear how and why she coded "Did Not Understand Benefits of Premium."

166.   The below analysis of some of Dr. Chetty's participants provides a few examples of the problems associated with Dr. Chetty's coding that ended up in her "participant_coding_analysis.xlsx" spreadsheet. The coding in this spreadsheet drove the

94

statistical analysis that Dr. Chetty performed. However, if the data in the spreadsheet is incorrect, then the summary statistics that Dr. Chetty calculated from the spreadsheet are also inaccurate.

a. **Inconsistency in Coding:** Dr. Chetty's coding of "Uninformed Enrollment" does not consistently align with the evidence. Some participants (e.g., Participant 12 and Participant 29) demonstrated engagement and understanding, yet Participant 12 was coded as Informed Enrollment, and Participant 29 was recorded as uninformed Enrollment.

b. **Impact of Experimental Context:** Several instances (e.g., Participant 4 and Participant 19) suggest that the beta or experimental conditions significantly influenced participant behavior. This context should be factored into any interpretation of "informed" versus "uninformed" choices. The beta context of the fake CandyForever website and the experimental design issues challenge the validity of using these results as a proxy for real-world consumer behavior on Amazon.com.

c. **Cancellation Process Concerns:** The reported issues with the cancellation process—such as missing options and confusing layouts—further complicate the interpretation of participant behavior. When technical issues are present, user actions may be more reflective of system errors than consumer misunderstanding.

167.   An analysis of five of the participants Dr. Chetty coded as having enrolled in Premium reveals numerous concerns about her coding and the impact of the artificial nature of the task:

a. Participant 4

   i. Participant 4 chose the option labeled "FREE shipping with your free trial of Premium."[60]

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[60] Participant 4 Video at 11:12 and 13:50.

ii.   They appeared confused about why a Premium option was even offered, given the site's beta nature. They noted, "*I think with offering the Premium subscription is odd in placement of this being a beta test.*"[61] They noted, "*I just need to know, and I think this is just because it is a beta right? Like I think it is because it is just testing. It's kind of weird like, am I signing up for a Premium 30 day, is the site really live, am I really signing up for something or is this again we are just walking through it and not really signing up? I think if I was making a real purchase for a real live site it then it is a little less confusing… it's just distracting…*"[62]

iii. This shows how the participant was distracted by the site's beta nature. Although the opposing expert's coding marks this as "Accidental enrollment," the context of a beta site calls into question whether this behavior truly reflects an accidental choice or a response to a confusing experimental setup.

iv.   Furthermore, labeling their enrollment as "Uninformed" fails to acknowledge the experimental confusion that skewed their decision-making.

b. <u>Participant 5</u>

i.   Although this participant's responses were difficult to follow, they did indicate an understanding of the offer by remarking, *"Enjoy premium for 30 days, might as well take advantage of it."*[63] This suggests that they were aware of the trial period and did not misunderstand the nature of the offer.

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[61] *Id.* at 11:12.

[62] *Id.* at 13:50.

[63] Participant 5 Video at 13:32.

ii.   Nevertheless, Dr. Chetty coded this participant as "Did Not Understand the Nature of Premium."

iii. Furthermore, Dr. Chetty marked that this participant belonged in the category: "Participant was Not Asked About Charge Timeline."

iv.   The mixed coding for the charge timeline and the label "Uninformed Enrollment" seems contradictory, given that the participant stated an understanding of the 30-day trial. The coding should reflect that this participant appeared to understand the process and what they were reading rather than being entirely uninformed.

c.   Participant 13

i.   Dr. Chetty categorized Participant 13 as an "Uninformed Enrollment" in Premium. She also coded Participant 13 as someone who "Said Cancellation was Onerous." However, my review of Participant 13's study video does not support those categorizations.

ii. Instead, Participant 13 made what appears to be an informed decision by noting that "*everything was free, even the trial was free*"[64] and reading the confirmation box aloud. They specifically described the checkout flow as "*seamless and flawless and pretty much straight to the point*"[65] and did not want to change anything about the checkout flow. The participant read the enrollment congratulations box out loud, confirming that they knew of the enrollment, and directly confirmed that they did and meant to enroll in Premium. ("***Yes, Yes***").[66]

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[64] Participant 13 Video at 11:33.

[65] *Id.* at 9:20 – 9:35.

[66] *Id.* at 13:13.

iii. When asked if it was a subscription they would want to keep, Participant 13 responded, "**Yeah**."[67]

iv. They also described the cancellation process as "**flawless**"[68] and "**pretty easy**"[69] and confirmed that they intended the enrollment. When asked when they would be charged the subscription amount, they responded correctly, "**After 30 days**."[70]

v. Thus, the "Uninformed Enrollment" coding is dubious because Participant 13 understood the trial and cancellation process and explicitly confirmed their intention to enroll.

vi. Although Participant 13 expressed some uncertainty about the exact cost of Premium, ("**Was it $9.95… can't quite remember**"),[71] as mentioned previously, this uncertainty about the price *after the study* was completed, does not correctly assess whether the participant knew the price *at the time of purchase during the study*. Nevertheless, Dr. Chetty coded Participant 13 as someone who "Did Not Know Cost of Premium," which, in my opinion, is a misleading categorization. Their lack of precise cost recall post-completion of the exercise does not indicate a failure to understand the membership terms.

vii. As explained above, what is important is that the user understands the cost at the time of enrollment. Dr. Chetty's coding of Participant 13 shows that she was testing whether they remembered the cost after the fact. In addition, as the participants were not using their own money, they would likely have

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[67] *Id.* at 13:28.

[68] *Id.* at 16:54.

[69] *Id.* at 17:13.

[70] *Id.* at 13:02.

[71] *Id.* at 12:51.

paid much less attention to the price displayed in the experiment than when using their own money on Amazon.com.

d. Participant 19

    i. Participant 19 demonstrated a playful or experimental approach to the site. They acknowledged when clicking the Premium signup button that they would be charged, remarking, **"*I'll click this just for fun.*"**[72] This indicates that they were clearly clicking Premium to test the site rather than doing what they would typically do on a real site. This participant's behavior and answers in the study are not extrapolatable to a real-world user.

    ii. Although Participant 19 intentionally clicked on Premium "*just for fun,*"[73] when asked whether they intended to enroll, they responded that they did not. But this contradicts their behavior during the checkout process, in which they affirmatively stated that they were selecting Premium "*just for fun,*" knowing "*it's going to charge me,*" and selected the Premium shipping option for "*[f]ree one day delivery*."[74] Nevertheless, Dr. Chetty coded Participant 19 as someone who made an "Uninformed Enrollment."

    iii. This shows that one cannot compare the results from a website where the users know they are not using their own money to a website where they know they are using their own money, such as Amazon.com, as the motivations will differ

    iv. Dr. Chetty also coded Participant 19 as someone who "Did Not Know the Cost of Premium." However, my review of the participant's video shows that the truth is more complicated. When asked about the cost of Premium,

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[72] Participant 19 Video at 10:00.

[73] *Id.*

[74] *Id.* at 13:30.

Participant 19 responded, "*I didn't look*."[75] This does not indicate that Participant 19 did not know the price because they could not find it; rather, this shows that Participant 19 simply did not look at the price because this was an artificial exercise where they would have no ongoing payment obligation. Dr. Chetty's experiment design did not have the same financial motivations as when shopping on Amazon.com. Indeed, Participant 19 expressly noted, "*I wasn't even using my own money*" when reviewing the shipping prices to select an option.[76]

v.   Thus, Dr. Chetty's coding of Participant 19 as someone who made an uninformed enrollment and did not know the cost of Premium is misleading.

e.   Participant 29

i.   Participant 29 self-identified as a high-level online shopper and actively engaged with the interface. They clearly stated their preference for the 30-day trial option, stating: "*I would like to do the free trial one day delivery.*"[77] This shows that the participant was informed.

ii.   Their statements also show they were drawn to the trial benefits and later understood the cost-saving terms.[78] They also confirmed that they knew that they enrolled in Premium.[79]

iii.   Nevertheless, Dr. Chetty coded Participant 29 as an "Uninformed Enrollment." Labeling the enrollment as "Uninformed" contradicts their detailed exploration and understanding of the available options. Their

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[75] *Id.* at 14:34.

[76] *Id.* at 13:30.

[77] Participant 29 Video at 8:50.

[78] *Id.* at 14:00-14:25.

[79] *Id.* at 14:50.

behavior suggests a deliberate, informed decision rather than an accidental or uninformed one.

iv. Moreover, like Participant 19, Participant 29 made clear remarks about how they knew the study was artificial and that they were not using their own money. After being told that they might get charged, Participant 29 responded, "***Yeah, but it's this card,***"[80] referring to the study-provided gift card. Thus, their actions were different from what they would normally have done if they were on an actual website using their own real money.

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[80] *Id.* at 15:48.

6.0 Conclusion
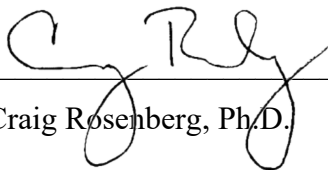
168.   Dr. Chetty's conclusions regarding Amazon Prime's enrollment and cancellation flows rely heavily on subjective interpretations and flawed methodologies rather than robust empirical evidence. Her cognitive walkthrough and think-aloud studies contain substantial methodological shortcomings, including reliance on artificial user environments that do not accurately reflect real-world consumer experiences and behaviors. Notably, Dr. Chetty's think-aloud usability study, conducted in an artificially constrained context, failed to accurately replicate realistic consumer interactions, leading to behaviors and conclusions that cannot be generalized to draw conclusions about real-world experiences of Amazon and Prime users.

169.   Further, the design choices that Dr. Chetty categorizes as "dark patterns," such as emphasizing Prime's benefits during checkout or the multi-step cancellation process, are widely recognized as standard industry practices employed by numerous reputable subscription-based services, including Netflix, Spotify, Walmart, and Apple. These approaches are not inherently manipulative; instead, they provide relevant information, choices, and convenience, benefiting consumers by clearly communicating the value of subscription services and providing options to reconsider cancellation or explore alternatives.

170.   Moreover, Dr. Chetty's analysis frequently exhibits a double standard, criticizing Amazon for providing insufficient information during enrollment and excessive information during cancellation. Such contradictory standards undermine the objectivity and credibility of her assertions.

171.   In conclusion, Amazon's enrollment and cancellation processes are consistent with industry norms, clearly communicate subscription terms, and empower users to make informed choices. Dr. Chetty provides insufficient empirical evidence to support allegations of user deception or manipulation.

172.   Consequently, the characterizations presented in Dr. Chetty's report regarding Amazon's use of dark patterns lack sufficient methodological rigor, empirical support, and practical consistency to substantiate claims of deceptive design.

Name: _____
Craig Rosenberg, Ph.D.

Date: 3-26-26 _____

Appendix A: CV of Dr. Craig Rosenberg

Craig S. Rosenberg, Ph.D.
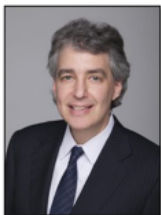
An accomplished human factors engineer, user interface designer, project manager, and systems and software engineer specializing in analyzing and designing mobile computing devices, complex systems, user-centered design, information architecture, user experience, systems and software engineering, object-oriented analysis, and modeling and simulation. Extensive experience in the entire software design, development, and project management life cycle applied to a wide range of domains, from embedded mobile devices to enterprise-class mission-critical applications.

craig@globaltechnica.com
206-451-0706

SUMMARY OF QUALIFICATIONS
*** Human Factors, User Interface Design, Information Architecture, Cognitive Engineering, Experimental Design
*** Systems Engineering, Software Architecture, Modeling and Simulation, Virtual Environments, Animation, Art
*** C, C++, C#, Objective C, JAVA, UML, .NET, VISUAL BASIC, HTML, XML, PYTHON, LISP, FORTRAN, SAS
*** Visual Studio, Eclipse, Rhapsody, RSA/RSM, ClearCase, ClearQuest, Dreamweaver, Photoshop
*** Unity 3D, 3D Studio, Alias, AutoCAD, Rogue Wave, GD Pro, Motif, Builder Accessory, MS Office
*** Windows, Linux, OSX, PC, Macintosh, Sun, HP, IBM, StereoGraphics
*** Scholarship from the Interservice/Industry Training Simulation & Education Conference
*** Founder of the Northwest Alias Users Group
*** US Secret Security Clearance - expired

EDUCATION
Ph.D. Human Factors, University of Washington, 1994
M.S. Human Factors, University of Washington, 1990
B.S. Industrial Engineering, University of Washington, 1988
Graduating GPA: **3.83**

PROFESSIONAL EXPERIENCE
Global Technica, Seattle, WA   Nov 1994 - Present
CEO of an advanced engineering consulting and software development company providing systems design, development, and project management in the areas of custom software development, human factors engineering, user interface design, and simulation for a wide range of advanced commercial and military programs.
- Designed and developed advanced discrete event and agent-based software tools, models, and simulations in the areas of missile defense, homeland security, battle command management, networking and communications, mobile computing, air traffic control, software simulation, and UAV command and control.
- Designed and developed advanced air traffic control analysis applications, toolsets, and trade study simulations for Boeing Air Traffic Management. Technical lead responsible for tasking of twelve engineers.
- Designed and Developed the Boeing Human Agent Model; an advanced model for the simulation of human sensory, cognitive, and motor performance as applied to the roles of air traffic controllers, pilots, and UAV operators.
- Provided human factors engineering and user interface design for Boeing's main internal vector and raster computer aided drafting and editing system that produces all maintenance manuals, shop floor illustrations, and service bulletins for all Boeing commercial aircraft.
- Designed and developed multiple systems for the Future Combat Systems Network Systems and Software Engineering group.
- Designed and developed a system for Disney for simulating and tracking visitors at Disney World
- Designed and developed iOS and Android software for Immersion Networks

Additional responsibilities include project management, subcontractor management, outsourcing, system engineering, requirements analysis, functional specification, use case development, user stories, application prototyping, modeling and simulation, object-oriented software architecture, graphical user interface analysis and design, as well as UML, C++, C#, and Java software development.

StratoScientific, Seattle, WA   Jan 2014 - Present
Cofounder of a medical technology startup company creating an innovative case for smartphones that turns it into a digital stethoscope for enhanced diagnosis, serial comparisons, and telemedicine. Responsible for software project management.

Healium, Seattle, WA   May 2013 – July 2016
Cofounder of a medical technology startup company leveraging wearable technologies such as Google Glass and Apple Watch to allow physicians to interact more easily with their electronic medical records. Responsible for software project management.

WhereWuz, Seattle, WA   March 2010 – Jan 2014
Founder, inventor, user interface designer, and software architect for a company producing advanced mobile software running on GPS enabled smartphones. WhereWuz allows users to record exactly where they have been and query this data in unique ways for subsequent retrieval based on time or location. Currently available for iPhones and Android handheld devices. www.wherewuz.com

Entrepreneur in Residence, Spyglass Ventures, Los Angeles, CA   April 2008 – Dec 2009
Lead technologist and entrepreneur in residence for a Los Angeles-based media-oriented venture capital firm focusing on early-stage private equity investing. Responsibilities include evaluating investment opportunities, generating new business ideas, and providing functional expertise to assist existing investments in the mobile and entertainment sectors.

User Interface Designer, ObjectSpeed, Seattle, WA   Feb 2006 – June 2007
Lead user interface and interaction designer for a technology company specializing in consumer hand-held VoIP products. Responsible for all user interface design, user interaction, information architecture design, industrial design and human factors activities.   Additional responsibilities include functional specification, human factors analysis, requirements analysis, application prototyping, graphical design, and user interface programming for a hand-held VoIP mobile consumer device.

User Interface Designer, Ahaza Systems, Seattle, WA   June 2001 - Dec 2001
Lead user interface and interaction designer responsible for all user interface design and development activities associated with a complete line of advanced IPv6 network hardware devices. Duties include user interface design, human factors analysis, and interactive application prototyping.

User Interface Designer, Eyematic Interfaces, Seattle, WA   Oct 99 - April 2001
Lead human factors and interaction designer responsible for all user interface design and development activities associated with real-time mobile hand-held 3D facial tracking, animation, avatar creation, and editing software. Duties include requirements analysis, functional specification, user interface design, and human factors analysis.

User Interface Designer, AT&T / Teague Corporation, Redmond, WA   June 95 - March 96
Lead human factors and interaction designer for a large industrial design firm. Responsible for all functionality, human factors analysis, user interface design, graphical design, systems analysis, and documentation for the world's first two-way wireless pager produced by AT&T Wireless.

Associate Assistant Professor, University of Washington, Seattle, WA   Dec 94 - Dec 95
Human Factors Professor at the University of Washington Industrial Engineering Department. Duties include teaching, writing research proposals, designing and conducting funded human factors experiments for the National Science Foundation, and hiring and supervising students.

Software Design Engineer, Socha Computing, Bellevue, WA   Aug 94 - Sept 95
Responsible for designing and developing interactive multimedia games and educational software for children and adults. Duties include functional specification, software design and architecture, user interface design, application prototyping, software development, focus group testing, and internet research.

Network Engineer, PSF Industries, Seattle, WA   March 92 - Nov 96
Independent consultant to a mechanical engineering firm specializing in designing, fabricating, and installing large-scale, high-pressure vessels. Responsible for designing, procuring, and installing an advanced networked computer-aided engineering system to improve design quality and engineer productivity.

Human Factors Researcher, University of Washington, Seattle, WA   Jan 89 - June 94
Responsible for designing and performing advanced human factors experiments relating to virtual worlds and advanced visualization research. Funded by the National Science Foundation to conduct research on advanced software and hardware interfaces for virtual environments. Duties include user interface design, systems design, software development, graphics programming, experimental design, and hardware and software interfacing.

Alias Animator, Technology Design, Bellevue, WA   April 91 - Jan 92
Independent contractor to an industrial design firm specializing in technology hardware design for computers and consumer electronics products. Created models, animations, and renderings that were used for product engineering and marketing. Services also included training, hardware and software installation, and system optimization.

Operations Manager, Micro Products, Bellevue, WA   June 88 - Sept 88
Managed large-scale computer graphics conversion contracts. Installed and optimized a custom optical scanning and capture system for a computer graphics scanning company. Responsibilities included employee management, production scheduling, subcontracting and outsourcing, and software development.

Industrial Engineering Consultant, Avtech Corporation, Seattle, WA   Jan 88 - June 88
Professional industrial engineer for a large aerospace digital electronics company. Solely responsible for completely redesigning the entire manufacturing facility to optimize the assembly of multiple lines of digital avionics communication equipment. Additional responsibilities included integrating software for a CNC milling center to automate the production of lighted instrument completely displays panels.

ADDITIONAL INFORMATION
I have published over twenty research papers in professional journals and proceedings relating to user interface design, computer graphics, and spatial, stereographic, and auditory display design. I was the sole recipient of a $10,000 scholarship award from the I/ITSEC for advancing the field of interactive computer graphics for flight simulation. I received an award from the Link Foundation for my work furthering the field of virtual interface design. I created five book covers for books by Harcourt Brace Publishing that feature the authors Arthur C. Clarke, Isaac Asimov, and Stephen King. Several minutes of my computer graphics animations appear in the movie Beyond the Mind's Eye, produced by MIRAMAR. I have won an engineering design award from the City of Los Angeles for designing an energy-saving product. I enjoy playing tennis, skiing, and composing, playing, and recording music in my free time. You can view my company's website at: www.globaltechnica.com

SELECTED PUBLICATIONS

Parks P., Rosenberg C., Interactive Distributed Simulation Environment for Collaborative Technology Experiments and Analysis, SimTecT, Brisbane, Australia, 2008.

Crutchfield J., Rosenberg C., Predicting Subjective Working Ratings: A Comparison and Synthesis of Operational and Theoretical Models, HCI-Aero Conference Proceedings, Seattle, WA, 2006.

Barfield, W., Cohen, M., Rosenberg, C., Visual and Auditory Localization as a Function of Azimuth and Elevation, The International Journal of Aviation Psychology, 7(2), pages 123-138, 1997.

Barfield, W., Rosenberg, C., & Lotens, W. A., Augmented-Reality Displays. In W. Barfield & T. A. Furness III (Eds.) Virtual Environments and Advanced Interface Design (pp.542-575), New York, NY: Oxford University Press, 1995.

Barfield, W., Rosenberg, C., & Furness, T.A., Situation Awareness as a Function of Frame of Reference, Computer-Graphics Eyepoint Elevation, and Geometric Field of View, International Journal of Aviation Psychology, Vol 5, pages 233-256, 1995.

Barfield, W., and Rosenberg, C., Judgments of Azimuth and Elevation as a Function of Monoscopic and Binocular Depth Cues Using a Perspective Display, Human Factors, Vol 37, Number 1 1995.

Rosenberg, C., Barfield, W., Estimation of Spatial Distortion as a Function of Geometric Parameters of Perspective, IEEE Transactions on Systems, Man and Cybernetics, Volume 25, Issue 9, Sept. 1995.

Barfield, W., and Rosenberg, C., Perspective versus Stereoscopic Displays for Spatial Judgments, accepted for publication, Human Factors, 1994.

Barfield, W., and Rosenberg, C., and Furness, T., Situational Awareness as a Function of Frame of Reference, Virtual Eyepoint Elevation, and Geometric Field of View, International Journal of Aviation Psychology, 1994.

Rosenberg, C., Moses, B., Future Human Interfaces to Computer Controlled Sound Systems, 95th Annual Audio Engineering Conference, New York, New York, October, 1993.

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Barfield, W., and Rosenberg, C., Spatial Situational Awareness as a Function of Frame of Reference, Virtual Eyepoint Elevation, and Geometric Field of View, SID Conference, Seattle, Washington, September, 1993.

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Lion, D., Rosenberg, C., and Barfield, W., Overlaying Three-Dimensional Computer Graphics with Stereoscopic Live Motion Video: Applications for Virtual Environments, SID Conference, Seattle, Washington, September, 1993.

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Rosenberg, C., and Barfield, W., The Effects of Scene Complexity and Object Density for Low Level Flight, Sixth International Symposium on Aviation Psychology, Columbus Ohio, September, 1991.

Barfield, W., Rosenberg, C., and Levasseur, J., The Effect of Icons, Earcons, and Commands on the Design of a Hierarchical On-line Menu, IEEE Transactions on Professional Communication, 1991.

Barfield, W., Rosenberg, C., and Kraft, C., Relationship Between Scene Complexity and Perceptual Performance for Computer Graphics Simulations, Displays: Technology and Applications, 179-185, 1990.

Barfield, W., Lim, R., and Rosenberg, C., Visual Enhancements and Geometric Field of View as Factors in the Design of Perspective Displays, Proceedings of the Human Factors Society 34th Annual Meeting, Orlando, Florida, 1470-1473, 1990.

Barfield, W., and Rosenberg, C., The Effects of Scene Complexity on Judgments of Aimpoint and Altitude During Final Approach, Proceedings of the Human Factors Society 34th Annual Meeting, Orlando, Florida, 61-65, 1990.

Barfield, W., Rosenberg, C., and Kraft, C., The Effect of Visual Cues to Realism and Perceived Impact Point During Final Approach, Proceedings of the Human Factors Society 33rd Annual Meeting, Denver Colorado, 1989.

TESTIFYING EXPERIENCE

- *Foursquare Labs v. Silver State Intellectual Technologies*, IPR2014-00159, P.T.A.B.. Filed: November 18, 2013.
- *Silver State Intellectual Technologies v. Garmin, 2:11-cv-01578-GMN-PAL, District of Nevada. Filed: September 29, 2011*
- *Select Retrieval LLC v. B & H Foto & Electronics Corp. et al*, 1:11-cv-00812-RGA, District of Delaware. Filed: September 13, 2011.
- *Wavemarket, Inc. d/b/a Location Labs v. LocatioNet Systems*, IPR2014-00199, P.T.A.B.. Filed: November 27, 2013.
- Google v. *Intellectual Ventures*, IPR2014-00787
- *Federal Trade Commission v. Amazon.com, Inc.*, C14-1038-JCC (Western District of Washington at Seattle)
- *Lindsay Corporation vs. Valmont Industries*, IPR2015-01039, P.T.A.B.. Filed: April 10, 2015.
- *In re Myford Touch Consumer Litigation*, 13-cv-3072-EMC, Northern District of California. Filed: July 2, 2013
- *BeUbiq v. Curtis Consulting Group*, 1-14-cv-270691 (Superior Court of California, County of Santa Clara)
- *Education Logistics, Inc. v. Datasopoulus, MacDonald & Lind*, DV-06-1072 (Montana Fourth Judicial Court, Missoula)
- *Global Equity Management (SA) PTY. LTD. v. Alibaba*, 6:16-cv-00098 (M.D. Florida)
- *Level One Technologies v. Penske Truck Leasing*, 4:14-cv-1305-RWS, Eastern District of Missouri. Filed: July 24, 2014.
- *Title Source, Inc. v. HouseCanary Inc., 2016-CI-06300* (Texas Dist. (state court), Bexar Co.)
- *Digital Cable and Satellite Products, Set-Top Boxes, Gateways, and Components Thereof, 337-TA-1049,* International Trade Commission. Filed: March 9, 2017.
- *Tatsoft v. InduSoft, D-1-GN-14-001853*, Texas District Court Travis County. Filed: June 12, 2014.
- *Courthouse News Service v. Yamasaki, 8:17-cv-00126 AG (KESx), Central District of California. Filed: January 24, 2017*

- *Princeton Digital Image Corp. v.* **Konami Digital Entmt Inc.**, *12-1461-LPS-CJB, District of Delaware. Filed: November 13, 2012*
- **FCA US LLC Monostable Electronic Gearshift Litigation**, *16-md-02744, Eastern District of Michigan. Filed: October 5, 2016.*
- **Barbaro Technologies, LLC.** v. *Niantic, Inc., 3:18-cv-02955-RS, Northern District of California. Filed: May 18, 2018*
- **Blackberry Limited** v. *Facebook, Inc., 2:18-cv-01844, Central District of California. Filed: March 6, 2018.*
- **Blackberry Limited** v. *Snap, Inc., 2:18-cv-02693, Central District of California. Filed: April 3, 2018.*
- **Saracen LLC** v. *Sylvain Ross, Marginal Unit, Inc. 4:18-cv-3714, Southern District of Texas. Filed: October 09, 2018.*
- **Fidelity Information Services, LLC** v. *Groove Digital, Inc. IPR2019-00050. Filed: October 17, 2018.*
- *U.S. Oil & Refining Co., v.* **City of Tacoma**, *Washington Dept. of Public Utilities, ABB INC., 18-2-07232-3 (Superior Court of Washington for Pierce County)*
- *X One, Inc., v.* **Uber Technologies, Inc.**, *5:16-CV-06050-LHK, Northern District of California San Jose Division. Filed: October 16, 2019.*
- **Kipu Systems, LLC.** v. *ZenCharts, LLC., 1:17-cv-24733-KMW-EGT, Southern District of Florida. Filed: December 31, 2017.*
- **Maxell, LTD.** v. *Apple, Inc., 5:19-cv-0036-RWS, Eastern District of Texas. Filed: March 15, 2020.*
- *Aatrix Software, Inc. v.* **Green Shades Software, Inc.**, *3:15-cv-00164-J-lOMCR, Middle District of Florida. Filed: February 13, 2015*
- **Certain Electronic Devices, Including Streaming Players, Televisions, Set Top Boxes, Remote Controllers, and Components Thereof**, *337-TA-1200, I.T.C. Filed: April 15, 2020.*
- *Opal Labs, Inc., v.* **Sprinklr, Inc.**, *3:18-cv-01192-HZ, District of Oregon. Filed July 3, 2018.*
- **ExactLogix, Inc. d/b/a AccuLynx.com**, v. *JobProgress, LLC., 3:18-cv-50213, Northern District of Illinois Western Division. Filed: June 19, 2018.*
- *Samsung Electronics and Apple, Inc. v.* **Neonode Smartphone LLC**, *IPR2021-00145. P.T.A.B. Filed: November 6, 2020.*
- *Roku, Inc v.* **Universal Electronics, Inc.** *IPR2021-00261. P.T.A.B. Filed: December 14, 2020.*
- **Utherverse Gaming LLC** v. *Epic Games, 2:21-cv-799-RSM-TLF, Western District of Washington. Filed: June 11, 2021*
- *Samsung Electronics LTD. And Apple, Inc. v.* **Neonode Smartphone LLC**, *IPR2021-00144 P.T.A.B. Filed: November 6, 2020.*
- *District of Columbia v.* **Maplebear Inc. d/b/a Instacart**, *2020-CA-003777-B, Superior Court of the District of Columbia Civil Division. Filed: August 27, 2020.*
- **Colleen Whatton** v. *The Goodyear Tire & Rubber Co*, et al., *OCN-L-1580, Superior Court of New Jersey*
- **Masimo Corp** v. *Apple Inc., IPR2023-00664, P.T.A.B. Filed: March 06, 2023.*
- *Apple Inc. v.* **Masimo Corp.**, *1:22-1378-MN-JLH, District of Delaware. Filed: October 20, 2023.*
- *Design With Friends, Inc. v.* **Target Corp.**, *1:21-cv-01376-LPS, District of Delaware. Filed: September 28, 2021.*
- **BMW of North America, LLC** et al. v. *NorthStar Systems, LLC, IPR2023-00890, P.T.A.B. Filed: June 09, 2023.*
- *Lenovo v.* **AsusTek.**, *337-TA-1382, International Trade Commission. Filed: November 15, 2023.*
- **Multimedia Technologies** v. *LG Electronics, 2:22-CV-494-JRG-RSP, Eastern District of Texas. Filed: December 23, 2022.*
- **Moement** v. *Groomore, 22-CV-02871-WLH-JEM, Central District of California. Filed: April 29, 2022.*

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Appendix B: Materials Relied On

Academic Articles

Frank, K. (2000), "Impact of a Confounding Variable on a Regression Coefficient," *Sociological Methods & Research*, Vol. 29, No. 2., https://doi.org/10.1177/0049124100029002001.

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Lewis, C et al. (1990), "Testing a Walkthrough Methodology for Theory-Based Design of Walk-Up-and-Use Interfaces," *CHI '90: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, https://dl.acm.org/doi/10.1145/97243.97279.

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Mathur, A. et al. (2021), "What Makes a Dark Pattern... Dark?", *CHI '21*, Yokohama, Japan: ACM, https://dl.acm.org/doi/abs/10.1145/3411764.3445610.

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Bates Stamped Documents

AMZN_00003653

AMZN_00004634

AMZN_00009409

AMZN_00014196

AMZN_00022473

AMZN_00022508

AMZN_00022835

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AMZN_00148957

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AMZN_00148966

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AMZN_00169678

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AMZN-PRM-FTC-000792483

AMZN-PRM-FTC-000970536

AMZN-PRM-FTC-001025363

AMZN-PRM-FTC-001956628

AMZN-PRM-FTC-002271476

AMZN-PRM-FTC-002535290

AMZN-PRM-FTC-002656996

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FTCAMZN_0001860

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Books

Carroll, J. M. and Rosen, M.B. (1987), "Paradox of the Active User," *Interfacing Thought: Cognitive Aspects of Human-Computer Interaction*, Cambridge, MA: MIT Press.

Kohavi, R. et al. (2020), *Trustworthy Online Controlled Experiments: A Practical Guide to A/B Testing*, Cambridge, UK: Cambridge University Press.

Kohavi. R., and Longbotham, R. (2017), "Online Controlled Experiments and A/B Testing" in *Encyclopedia of Machine Learning and Data Mining*, eds. Sammut, C. and Webb, G. I., Boston: Springer.

Norman, D. (2013), *The Design of Everyday Things*, New York: Basic Books.

Depositions

Deposition of Brian Smith, December 17, 2024

Deposition of Christopher Brown, December 19, 2024

Deposition of Jenny Blackburn, December 10, 2024

Deposition of Lois Berkowitz, December 9, 2024

Deposition of Miles Hunter, September 18, 2024

Deposition of Reid Nelson, February 25 and 27, 2025

Deposition of the FTC per Rule 30(b)(6) (Amanda Basta), September 10 and 11, 2024

Expert Reports

Expert Report of Marshini Chetty, Ph.D. and related materials

Expert Report of Craig Rosenberg, Ph.D. and related materials

Industry Reports

Federal Trade Commission (2013), ".com Disclosures: How to Make Effective Disclosures in Digital Advertising," https://www.ftc.gov/system/files/documents/plain-language/bus41-dot-com-disclosures-information-about-online-advertising.pdf.

Legal Documents

115

2023-11-30 FTC's Response to R. Grandinetti Interrogatories, Set 1

2023-11-30 FTC's Responses and Objections to J. Ghani Interrogatories, Set 1

2024-01-23 FTC's Supplemental Response to N. Lindsay's Interrogatories, Set 1

2024-05-23 FTC's Responses to Amazon's Interrogatories, Set 2

2024-06-03 Amazon's Responses and Objections to FTC's Interrogatories, Set 2

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Note: In addition to the documents on this list, I relied on all documents cited in my Opening Report and this Rebuttal Report to form my opinions.